

**CITY OF LEAVENWORTH, KANSAS
STORMWATER MASTER PLAN**

APPENDIX H

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SCS TYPE II DISTRIBUTION DESIGN STORM METHOD

SCS TYPE II DISTRIBUTION DESIGN STORM METHOD

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RETURN PERIOD = 10 YEARS
 STORM DURATION = 24 HOURS
 PT RAINFALL DEPTH = 5.04 INCHES
 NWS ADJUSTMENT* = 1

RETURN PERIOD = 100 YEARS
 STORM DURATION = 24 HOURS
 PT RAINFALL DEPTH = 7.68 INCHES
 NWS ADJUSTMENT* = 1

RETURN PERIOD = 500 YEARS
 STORM DURATION = 24 HOURS
 PT RAINFALL DEPTH = 9.84 INCHES
 NWS ADJUSTMENT* = 1

NONDIMENSIONAL					NONDIMENSIONAL					NONDIMENSIONAL							
TIME	RAINFALL	Cumulative	Accumul	Increment	Adjusted	TIME	RAINFALL	Cum Min	Accumul	Increment	Adjusted	TIME	RAINFALL	Cum Min	Accumul	Increment	Adjusted
frac of 24 hr	Px/P24**	Minutes	Rainfall inches	Rainfall inches	Rainfall inches	frac of 24 hr	Px/P24**		Rainfall inches	Rainfall inches	Rainfall inches	frac of 24 hr	Px/P24**		Rainfall inches	Rainfall inches	Rainfall inches
0	0	0	0.000	0.000	0.000	0	0	0	0.000	0.000	0.000	0	0	0	0.000	0.000	0.000
0.01	0.002	14	0.010	0.010	0.010	0.01	0.002	14	0.015	0.015	0.015	0.01	0.002	14	0.020	0.020	0.020
0.021	0.005	30	0.025	0.015	0.015	0.021	0.005	30	0.038	0.023	0.023	0.021	0.005	30	0.045	0.030	0.030
0.031	0.008	45	0.040	0.015	0.015	0.031	0.008	45	0.067	0.023	0.023	0.031	0.008	45	0.075	0.030	0.030
0.042	0.011	60	0.055	0.015	0.015	0.042	0.011	60	0.084	0.023	0.023	0.042	0.011	60	0.105	0.030	0.030
0.052	0.014	75	0.071	0.015	0.015	0.052	0.014	75	0.109	0.023	0.023	0.052	0.014	75	0.138	0.030	0.030
0.063	0.017	91	0.086	0.015	0.015	0.063	0.017	91	0.131	0.023	0.023	0.063	0.017	91	0.167	0.030	0.030
0.073	0.02	105	0.101	0.015	0.015	0.073	0.02	105	0.154	0.023	0.023	0.073	0.02	105	0.197	0.030	0.030
0.083	0.023	120	0.116	0.015	0.015	0.083	0.023	120	0.177	0.023	0.023	0.083	0.023	120	0.226	0.030	0.030
0.094	0.026	135	0.131	0.015	0.015	0.094	0.026	135	0.200	0.023	0.023	0.094	0.026	135	0.256	0.030	0.030
0.104	0.029	150	0.146	0.015	0.015	0.104	0.029	150	0.223	0.023	0.023	0.104	0.029	150	0.285	0.030	0.030
0.115	0.032	166	0.161	0.015	0.015	0.115	0.032	166	0.246	0.023	0.023	0.115	0.032	166	0.315	0.030	0.030
0.125	0.035	180	0.176	0.015	0.015	0.125	0.035	180	0.269	0.023	0.023	0.125	0.035	180	0.344	0.030	0.030
0.135	0.038	194	0.192	0.015	0.015	0.135	0.038	194	0.292	0.023	0.023	0.135	0.038	194	0.373	0.030	0.030
0.146	0.041	210	0.207	0.015	0.015	0.146	0.041	210	0.315	0.023	0.023	0.146	0.041	210	0.403	0.030	0.030
0.156	0.044	225	0.222	0.015	0.015	0.156	0.044	225	0.338	0.023	0.023	0.156	0.044	225	0.432	0.030	0.030
0.167	0.048	240	0.242	0.020	0.020	0.167	0.048	240	0.369	0.031	0.031	0.167	0.048	240	0.472	0.039	0.039
0.177	0.052	255	0.262	0.020	0.020	0.177	0.052	255	0.399	0.031	0.031	0.177	0.052	255	0.512	0.039	0.039
0.188	0.056	271	0.282	0.020	0.020	0.188	0.056	271	0.430	0.031	0.031	0.188	0.056	271	0.551	0.039	0.039
0.198	0.06	285	0.302	0.020	0.020	0.198	0.06	285	0.461	0.031	0.031	0.198	0.06	285	0.590	0.039	0.039
0.203	0.064	300	0.323	0.020	0.020	0.203	0.064	300	0.492	0.031	0.031	0.203	0.064	300	0.630	0.039	0.039
0.219	0.068	315	0.343	0.020	0.020	0.219	0.068	315	0.522	0.031	0.031	0.219	0.068	315	0.669	0.039	0.039
0.229	0.072	330	0.363	0.020	0.020	0.229	0.072	330	0.553	0.031	0.031	0.229	0.072	330	0.708	0.039	0.039
0.24	0.076	346	0.383	0.020	0.020	0.24	0.076	346	0.584	0.031	0.031	0.24	0.076	346	0.748	0.039	0.039
0.25	0.08	360	0.403	0.020	0.020	0.25	0.08	360	0.614	0.031	0.031	0.25	0.08	360	0.787	0.039	0.039
0.26	0.085	374	0.428	0.025	0.025	0.26	0.085	374	0.653	0.039	0.039	0.26	0.085	374	0.826	0.049	0.049
0.271	0.09	390	0.454	0.025	0.025	0.271	0.09	390	0.691	0.039	0.039	0.271	0.09	390	0.866	0.049	0.049
0.281	0.095	405	0.479	0.025	0.025	0.281	0.095	405	0.730	0.039	0.039	0.281	0.095	405	0.905	0.049	0.049
0.292	0.1	420	0.504	0.025	0.025	0.292	0.1	420	0.768	0.039	0.039	0.292	0.1	420	0.944	0.049	0.049
0.302	0.105	435	0.529	0.025	0.025	0.302	0.105	435	0.806	0.039	0.039	0.302	0.105	435	0.983	0.049	0.049
0.313	0.11	451	0.554	0.025	0.025	0.313	0.11	451	0.845	0.039	0.039	0.313	0.11	451	1.022	0.049	0.049
0.323	0.115	465	0.580	0.025	0.025	0.323	0.115	465	0.883	0.039	0.039	0.323	0.115	465	1.061	0.049	0.049
0.333	0.12	480	0.605	0.025	0.025	0.333	0.12	480	0.922	0.039	0.039	0.333	0.12	480	1.101	0.049	0.049
0.344	0.126	495	0.635	0.030	0.030	0.344	0.126	495	0.968	0.046	0.046	0.344	0.126	495	1.140	0.059	0.059
0.354	0.133	510	0.670	0.035	0.035	0.354	0.133	510	1.021	0.054	0.054	0.354	0.133	510	1.180	0.069	0.069
0.365	0.14	526	0.706	0.035	0.035	0.365	0.14	526	1.075	0.054	0.054	0.365	0.14	526	1.220	0.069	0.069
0.375	0.147	540	0.741	0.035	0.035	0.375	0.147	540	1.129	0.054	0.054	0.375	0.147	540	1.260	0.069	0.069
0.385	0.155	554	0.781	0.040	0.040	0.385	0.155	554	1.190	0.061	0.061	0.385	0.155	554	1.300	0.079	0.079
0.396	0.163	570	0.822	0.040	0.040	0.396	0.163	570	1.252	0.061	0.061	0.396	0.163	570	1.340	0.079	0.079
0.406	0.172	585	0.867	0.045	0.045	0.406	0.172	585	1.321	0.069	0.069	0.406	0.172	585	1.380	0.089	0.089
0.417	0.181	600	0.912	0.045	0.045	0.417	0.181	600	1.390	0.069	0.069	0.417	0.181	600	1.420	0.089	0.089
0.427	0.191	615	0.963	0.050	0.050	0.427	0.191	615	1.467	0.077	0.077	0.427	0.191	615	1.460	0.098	0.098
0.438	0.203	631	1.023	0.060	0.060	0.438	0.203	631	1.559	0.092	0.092	0.438	0.203	631	1.500	0.118	0.118
0.448	0.218	645	1.099	0.076	0.076	0.448	0.218	645	1.674	0.115	0.115	0.448	0.218	645	1.540	0.148	0.148
0.458	0.236	660	1.189	0.091	0.091	0.458	0.236	660	1.812	0.138	0.138	0.458	0.236	660	1.580	0.177	0.177
0.469	0.257	675	1.295	0.106	0.106	0.469	0.257	675	1.974	0.161	0.161	0.469	0.257	675	1.620	0.207	0.207
0.479	0.283	690	1.426	0.131	0.131	0.479	0.283	690	2.173	0.200	0.200	0.479	0.283	690	1.660	0.256	0.256
0.49	0.387	708	1.950	0.524	0.524	0.49	0.387	708	2.972	0.799	0.799	0.49	0.387	708	3.008	1.023	1.023
0.5	0.663	720	3.342	1.391	1.391	0.5	0.663	720	5.092	2.120	2.120	0.5	0.663	720	6.524	2.716	2.716
0.51	0.707	734	3.563	0.222	0.222	0.51	0.707	734	5.430	0.338	0.338	0.51	0.707	734	6.957	0.433	0.433
0.521	0.735	750	3.704	0.141	0.141	0.521	0.735	750	5.645	0.215	0.215	0.521	0.735	750	7.232	0.276	0.276
0.531	0.758	765	3.820	0.116	0.116	0.531	0.758	765	5.821	0.177	0.177	0.531	0.758	765	7.459	0.226	0.226
0.542	0.776	780	3.911	0.091	0.091	0.542	0.776	780	5.960	0.138	0.138	0.542	0.776	780	7.638	0.177	0.177
0.552	0.791	795	3.987	0.076	0.076	0.552	0.791	795	6.075	0.115	0.115	0.552	0.791	795	7.783	0.148	0.148
0.563	0.804	811	4.052	0.066	0.066	0.563	0.804	811	6.175	0.100	0.100	0.563	0.804	811	7.911	0.128	0.128
0.573	0.815	825	4.108	0.055	0.055	0.573	0.815	825	6.259	0.084	0.084	0.573	0.815	825	8.020	0.108	0.108
0.583	0.825	840	4.158	0.050	0.050	0.583	0.825	840	6.336	0.077	0.077	0.583	0.825	840	8.118	0.098	0.098
0.594	0.834	855	4.203	0.045	0.045	0.594	0.834	855	6.405	0.069	0.069	0.594	0.834	855	8.207	0.089	0.089
0.604	0.842	870	4.244	0.040	0.040	0.604	0.842	870	6.467	0.061	0.061	0.604	0.842	870	8.285	0.079	0.079
0.615	0.849	886	4.279	0.035	0.035	0.615	0.849	886	6.520	0.054	0.054	0.615	0.849	886	8.354	0.069	0.069
0.625	0.856	900	4.314	0.035	0.035	0.625	0.856	900	6.574	0.054	0.054	0.625	0.856	900	8.423	0.069	0.069
0.635	0.863	914	4.350	0.035	0.035	0.635	0.863	914	6.628	0.054	0.054	0.635	0.863	914	8.492	0.069	0.069
0.646	0.869	930	4.380	0.030	0.030	0.646	0.869	930	6.674	0.046	0.046	0.646	0.869	930	8.551	0.059	0.059
0.656	0.875	945	4.410	0.030	0.030	0.656	0.875	945	6.720	0.046	0.046	0.656	0.875	945	8.610	0.059	0.059
0.667	0.881	960	4.440	0.030	0.030	0.667	0.881	960	6.766	0.046	0.046	0.667	0.881	960	8.669	0.059	0.059
0.677	0.887	975															

NAME K-3

MODIFIED-UNIFORM STORM MODEL					MODIFIED-UNIFORM STORM MODEL					MODIFIED-UNIFORM STORM MODEL							
RETURN PERIOD = 10 YEARS					RETURN PERIOD = 100 YEARS					RETURN PERIOD = 500 YEARS							
STORM DURATION = 24 HOURS					STORM DURATION = 24 HOURS					STORM DURATION = 24 HOURS							
RAINFALL INTERVAL = 15 MINUTES					RAINFALL INTERVAL = 15 MINUTES					RAINFALL INTERVAL = 15 MINUTES							
INTENSITY = 0.21 IN/HR					INTENSITY = 0.32 IN/HR					INTENSITY = 0.41 IN/HR							
STORM DURATION		Rainfall	Adjusted Intensity	Adjusted Rainfall	STORM DURATION		Rainfall	Adjusted Intensity	Adjusted Rainfall	STORM DURATION		Rainfall	Adjusted Intensity	Adjusted Rainfall			
Hour	Minute	Cum. Min	Period #	in/hr	inches	Hour	Minute	Cum. Min	Period #	in/hr	inches	Hour	Minute	Cum. Min	Period #	in/hr	inches
0	0	0	1	0.000	0.000	0	0	0	0.000	0.000	0	0	0	0	0.000	0.000	
0	15	15	1	0.315	0.079	0	15	15	1	0.480	0.120	0	15	15	1	0.615	0.154
0	30	30	2	0.105	0.026	0	30	30	2	0.160	0.040	0	30	30	2	0.205	0.051
0	45	45	3	0.315	0.079	0	45	45	3	0.480	0.120	0	45	45	3	0.615	0.154
1	0	60	4	0.105	0.026	1	0	60	4	0.160	0.040	1	0	60	4	0.205	0.051
1	15	75	5	0.315	0.079	1	15	75	5	0.480	0.120	1	15	75	5	0.615	0.154
1	30	90	6	0.105	0.026	1	30	90	6	0.160	0.040	1	30	90	6	0.205	0.051
1	45	105	7	0.315	0.079	1	45	105	7	0.480	0.120	1	45	105	7	0.615	0.154
2	0	120	8	0.105	0.026	2	0	120	8	0.160	0.040	2	0	120	8	0.205	0.051
2	15	135	9	0.315	0.079	2	15	135	9	0.480	0.120	2	15	135	9	0.615	0.154
2	30	150	10	0.105	0.026	2	30	150	10	0.160	0.040	2	30	150	10	0.205	0.051
2	45	165	11	0.315	0.079	2	45	165	11	0.480	0.120	2	45	165	11	0.615	0.154
3	0	180	12	0.105	0.026	3	0	180	12	0.160	0.040	3	0	180	12	0.205	0.051
3	15	195	13	0.315	0.079	3	15	195	13	0.480	0.120	3	15	195	13	0.615	0.154
3	30	210	14	0.105	0.026	3	30	210	14	0.160	0.040	3	30	210	14	0.205	0.051
3	45	225	15	0.315	0.079	3	45	225	15	0.480	0.120	3	45	225	15	0.615	0.154
4	0	240	16	0.105	0.026	4	0	240	16	0.160	0.040	4	0	240	16	0.205	0.051
4	15	255	17	0.315	0.079	4	15	255	17	0.480	0.120	4	15	255	17	0.615	0.154
4	30	270	18	0.105	0.026	4	30	270	18	0.160	0.040	4	30	270	18	0.205	0.051
4	45	285	19	0.315	0.079	4	45	285	19	0.480	0.120	4	45	285	19	0.615	0.154
5	0	300	20	0.105	0.026	5	0	300	20	0.160	0.040	5	0	300	20	0.205	0.051
5	15	315	21	0.315	0.079	5	15	315	21	0.480	0.120	5	15	315	21	0.615	0.154
5	30	330	22	0.105	0.026	5	30	330	22	0.160	0.040	5	30	330	22	0.205	0.051
5	45	345	23	0.315	0.079	5	45	345	23	0.480	0.120	5	45	345	23	0.615	0.154
6	0	360	24	0.105	0.026	6	0	360	24	0.160	0.040	6	0	360	24	0.205	0.051
6	15	375	25	0.315	0.079	6	15	375	25	0.480	0.120	6	15	375	25	0.615	0.154
6	30	390	26	0.105	0.026	6	30	390	26	0.160	0.040	6	30	390	26	0.205	0.051
6	45	405	27	0.315	0.079	6	45	405	27	0.480	0.120	6	45	405	27	0.615	0.154
7	0	420	28	0.105	0.026	7	0	420	28	0.160	0.040	7	0	420	28	0.205	0.051
7	15	435	29	0.315	0.079	7	15	435	29	0.480	0.120	7	15	435	29	0.615	0.154
7	30	450	30	0.105	0.026	7	30	450	30	0.160	0.040	7	30	450	30	0.205	0.051
7	45	465	31	0.315	0.079	7	45	465	31	0.480	0.120	7	45	465	31	0.615	0.154
8	0	480	32	0.105	0.026	8	0	480	32	0.160	0.040	8	0	480	32	0.205	0.051
8	15	495	33	0.315	0.079	8	15	495	33	0.480	0.120	8	15	495	33	0.615	0.154
8	30	510	34	0.105	0.026	8	30	510	34	0.160	0.040	8	30	510	34	0.205	0.051
8	45	525	35	0.315	0.079	8	45	525	35	0.480	0.120	8	45	525	35	0.615	0.154
9	0	540	36	0.105	0.026	9	0	540	36	0.160	0.040	9	0	540	36	0.205	0.051
9	15	555	37	0.315	0.079	9	15	555	37	0.480	0.120	9	15	555	37	0.615	0.154
9	30	570	38	0.105	0.026	9	30	570	38	0.160	0.040	9	30	570	38	0.205	0.051
9	45	585	39	0.315	0.079	9	45	585	39	0.480	0.120	9	45	585	39	0.615	0.154
10	0	600	40	0.105	0.026	10	0	600	40	0.160	0.040	10	0	600	40	0.205	0.051
10	15	615	41	0.315	0.079	10	15	615	41	0.480	0.120	10	15	615	41	0.615	0.154
10	30	630	42	0.105	0.026	10	30	630	42	0.160	0.040	10	30	630	42	0.205	0.051
10	45	645	43	0.315	0.079	10	45	645	43	0.480	0.120	10	45	645	43	0.615	0.154
11	0	660	44	0.105	0.026	11	0	660	44	0.160	0.040	11	0	660	44	0.205	0.051
11	15	675	45	0.315	0.079	11	15	675	45	0.480	0.120	11	15	675	45	0.615	0.154
11	30	690	46	0.105	0.026	11	30	690	46	0.160	0.040	11	30	690	46	0.205	0.051
11	45	705	47	0.315	0.079	11	45	705	47	0.480	0.120	11	45	705	47	0.615	0.154
12	0	720	48	0.105	0.026	12	0	720	48	0.160	0.040	12	0	720	48	0.205	0.051
12	15	735	49	0.315	0.079	12	15	735	49	0.480	0.120	12	15	735	49	0.615	0.154
12	30	750	50	0.105	0.026	12	30	750	50	0.160	0.040	12	30	750	50	0.205	0.051
12	45	765	51	0.315	0.079	12	45	765	51	0.480	0.120	12	45	765	51	0.615	0.154
13	0	780	52	0.105	0.026	13	0	780	52	0.160	0.040	13	0	780	52	0.205	0.051
13	15	795	53	0.315	0.079	13	15	795	53	0.480	0.120	13	15	795	53	0.615	0.154
13	30	810	54	0.105	0.026	13	30	810	54	0.160	0.040	13	30	810	54	0.205	0.051
13	45	825	55	0.315	0.079	13	45	825	55	0.480	0.120	13	45	825	55	0.615	0.154
14	0	840	56	0.105	0.026	14	0	840	56	0.160	0.040	14	0	840	56	0.205	0.051
14	15	855	57	0.315	0.079	14	15	855	57	0.480	0.120	14	15	855	57	0.615	0.154
14	30	870	58	0.105	0.026	14	30	870	58	0.160	0.040	14	30	870	58	0.205	0.051
14	45	885	59	0.315	0.079	14	45	885	59	0.480	0.120	14	45	885	59	0.615	0.154
15	0	900	60	0.105	0.026	15	0	900	60	0.160	0.040	15	0	900	60	0.205	0.051
15	15	915	61	0.315	0.079	15	15	915	61	0.480	0.120	15	15	915	61	0.615	0.154
15	30	930	62	0.105	0.026	15	30	930	62	0.160	0.040	15	30	930	62	0.205	0.051
15	45	945	63	0.315	0.079	15	45	945	63	0.480	0.120	15	45	945	63	0.615	0.154
16	0	960	64	0.105	0.026	16	0	960	64	0.160	0.040	16	0	960	64	0.205	0.051
16	15	975	65	0.315	0.079	16	15	975	65	0.480	0.120	16	15	975	65	0.615	0.154
16	30	990	66	0.105	0.026	16	30	990	66	0.160	0.040	16	30	990	66	0.205	0.051
16	45	1005	67	0.315	0.079	16	45	1005	67	0.480	0.120	16	45	1005	67	0.615	0.154
17	0	1020	68	0.105	0.026	17	0	1020	68	0.160	0.040	17	0	1020	68	0.205	0.051
17	15	1035	69	0.315	0.079	17	15	1035	69	0.480	0.120	17	15	1035	69	0.615	0.154
17	30	1050	70	0.105	0.026	17	30	1050	70	0.160	0.040	17	30	1050	70	0.205	0.051
17	45	1065	71	0.315	0.079	17	45	1065	71	0.480	0.120	17	45	1065	71	0.615	0.154
18	0	1080	72	0.105	0.026	18	0	1080	72	0.160	0.040	18	0	1080	72	0.205	0.051
18	15	1095	73	0.315	0.079	18	15	1095	73	0.480	0.120	18	15	1095	73	0.615	0.154
18	30	1110	74	0.105	0.026	18	30	1110	74	0.160	0.040	18	30	1110	74	0.205	0.051
18	45	1125	75	0.315	0.079	18	45	1125	75	0.480	0.120	18	45	1125	75	0.615	0.154
19	0	1140	76	0.105	0.026	19	0	1140	76	0.160	0.040	19	0	1140	76	0.205	0.051
19	15	1155	77	0.315	0.079	19	15	1155	77	0.480	0.120	19	15	1155	77	0.615	0.154
19	30	1170	78	0.105	0.026	19	30	11									

Comparison Of Two Resources For Rainfall Intensities For Leavenworth County, Kansas

KDOT Rainfall Intensity Tables for Counties in Kansas, Revised Sept 1991

Report on Storm Water Drainage, Leavenworth, Kansas, Black & Veatch, Table 1, Oct 1967

1.002 WK 4

Do not type

DURATION:			RAINFALL INTENSITIES, IN/HR, FOR RETURN PERIOD							
Hour	Minute	Cum. Min.	5 YR				10 YR			
			KDOT	B&V	Variance	Abs. value of	KDOT	B&V	Variance	Abs. value of
			5 YR	5 YR	KDOT-B&V	% Difference	10 YR	10 YR	KDOT-B&V	% Difference
0	0	0								
0	1	1								
0	2	2								
0	3	3								
0	4	4								
0	5	5	6.48				7.26			
0	6	6	6.2				6.96			
0	7	7	5.97				6.71			
0	8	8	5.76				6.48			
0	9	9	5.56				6.26			
0	10	10	5.38	5	0.38	7.6	6.05	5.7	0.35	6.1
0	11	11	5.2	4.8	0.40	8.3	5.86	5.5	0.36	6.5
0	12	12	5.04	4.7	0.34	7.2	5.67	5.3	0.37	7.0
0	13	13	4.89	4.5	0.39	8.7	5.5	5.2	0.30	5.8
0	14	14	4.74	4.4	0.34	7.7	5.34	5	0.34	6.8
0	15	15	4.61	4.3	0.31	7.2	5.19	4.9	0.29	5.9
0	16	16	4.48	4.2	0.28	6.7	5.05	4.8	0.25	5.2
0	17	17	4.36	4.1	0.26	6.3	4.92	4.7	0.22	4.7
0	18	18	4.25	4	0.25	6.3	4.8	4.5	0.30	6.7
0	19	19	4.15	3.9	0.25	6.4	4.69	4.4	0.29	6.6
0	20	20	4.05	3.8	0.25	6.6	4.58	4.3	0.28	6.5
0	21	21	3.96	3.7	0.26	7.0	4.48	4.3	0.18	4.2
0	22	22	3.87	3.6	0.27	7.5	4.39	4.2	0.19	4.5
0	23	23	3.78	3.5	0.28	8.0	4.3	4.1	0.20	4.9
0	24	24	3.7	3.4	0.30	8.8	4.21	4	0.21	5.3
0	25	25	3.63	3.4	0.23	6.8	4.13	3.9	0.23	5.9
0	26	26	3.56	3.3	0.26	7.9	4.05	3.9	0.15	3.8
0	27	27	3.49	3.2	0.29	9.1	3.98	3.8	0.18	4.7
0	28	28	3.42	3.2	0.22	6.9	3.9	3.7	0.20	5.4
0	29	29	3.36	3.1	0.26	8.4	3.84	3.7	0.14	3.8
0	30	30	3.29	3.1	0.19	6.1	3.77	3.6	0.17	4.7
0	31	31	3.24	3	0.24	8.0	3.7	3.6	0.10	2.8
0	32	32	3.18	3	0.18	6.0	3.64	3.5	0.14	4.0
0	33	33	3.13	2.9	0.23	7.9	3.58	3.4	0.18	5.3
0	34	34	3.07	2.9	0.17	5.9	3.53	3.4	0.13	3.8
0	35	35	3.02	2.8	0.22	7.9	3.47	3.3	0.17	5.2
0	36	36	2.97	2.8	0.17	6.1	3.42	3.3	0.12	3.6
0	37	37	2.93	2.8	0.13	4.6	3.36	3.2	0.16	5.0
0	38	38	2.88	2.7	0.18	6.7	3.31	3.2	0.11	3.4
0	39	39	2.84	2.7	0.14	5.2	3.26	3.2	0.06	1.9
0	40	40	2.8	2.7	0.10	3.7	3.22	3.1	0.12	3.9
0	41	41	2.75	2.6	0.15	5.8	3.17	3.1	0.07	2.3
0	42	42	2.71	2.6	0.11	4.2	3.13	3	0.13	4.3
0	43	43	2.68	2.6	0.08	3.1	3.08	3	0.08	2.7
0	44	44	2.64	2.6	0.04	1.5	3.04	3	0.04	1.3
0	45	45	2.6	2.5	0.10	4.0	3	3	0.00	0.0
0	46	46	2.57	2.5	0.07	2.8	2.96	2.9	0.06	2.1

Comparison Of Two Resources For Rainfall Intensities For Leavenworth County, Kansas
 KDOT Rainfall Intensity Tables for Counties in Kansas, Revised Sept 1991
 Report on Storm Water Drainage, Leavenworth, Kansas, Black & Veatch, Table 1, Oct 1967

			RAINFALL INTENSITIES, IN/HR. FOR RETURN PERIOD							
DURATION			KDOT B&V		Variance	Abs. value of	KDOT B&V		Variance	Abs. value of
Hour	Minute	Cum. Min.	5 YR	5 YR	KDOT-B&V	% Difference	10 YR	10 YR	KDOT-B&V	% Difference
0	47	47	2.53	2.5	0.03	1.2	2.92	2.9	0.02	0.7
0	48	48	2.5	2.4	0.10	4.2	2.88	2.9	-0.02	0.7
0	49	49	2.47	2.4	0.07	2.9	2.84	2.8	0.04	1.4
0	50	50	2.43	2.4	0.03	1.2	2.81	2.8	0.01	0.4
0	51	51	2.4	2.4	0.00	0.0	2.77	2.8	-0.03	1.1
0	52	52	2.37	2.3	0.07	3.0	2.74	2.8	-0.06	2.1
0	53	53	2.34	2.3	0.04	1.7	2.7	2.7	0.00	0.0
0	54	54	2.32	2.3	0.02	0.9	2.67	2.7	-0.03	1.1
0	55	55	2.29	2.3	-0.01	0.4	2.64	2.7	-0.06	2.2
0	56	56	2.26	2.2	0.06	2.7	2.61	2.6	0.01	0.4
0	57	57	2.23	2.2	0.03	1.4	2.58	2.6	-0.02	0.8
0	58	58	2.21	2.2	0.01	0.5	2.55	2.6	-0.05	1.9
0	59	59	2.18	2.2	-0.02	0.9	2.52	2.6	-0.08	3.1
1	0	60	2.16	2.2	-0.04	1.8	2.49	2.6	-0.11	4.2
1	1	61								
1	2	62								
1	3	63								
1	4	64								
1	5	65	2.04	2.1	-0.06	2.9	2.36	2.5	-0.14	5.6
1	6	66								
1	7	67								
1	8	68								
1	9	69								
1	10	70	1.94	2	-0.06	3.0	2.23	2.4	-0.17	7.1
1	11	71								
1	12	72								
1	13	73								
1	14	74								
1	15	75	1.85	1.9	-0.05	2.6	2.13	2.3	-0.17	7.4
1	16	76								
1	17	77								
1	18	78								
1	19	79								
1	20	80	1.76	1.9	-0.14	7.4	2.03	2.3	-0.27	11.7
1	21	81								
1	22	82								
1	23	83								
1	24	84								
1	25	85	1.68	1.8	-0.12	6.7	1.94	2.2	-0.26	11.8
1	26	86								
1	27	87								
1	28	88								
1	29	89								
1	30	90	1.62	1.7	-0.08	4.7	1.86	2.1	-0.24	11.4
1	31	91								
1	32	92								
1	33	93								

Comparison Of Two Resources For Rainfall Intensities For Leavenworth County, Kansas
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DURATION			RAINFALL INTENSITIES, IN/HR, FOR RETURN PERIOD							
			KDOT B&V				KDOT B&V			
Hour	Minute	Cum. Min.	5 YR	5 YR	Variance	Abs. value of	10 YR	10 YR	Variance	Abs. value of
					KDOT-B&V	% Difference			KDOT-B&V	% Difference
1	34	94								
1	35	95	1.55	1.7	-0.15	8.8	1.78	2	-0.22	11.0
1	36	96								
1	37	97								
1	38	98								
1	39	99								
1	40	100	1.49	1.6	-0.11	6.9	1.71	2	-0.29	14.5
1	41	101								
1	42	102								
1	43	103								
1	44	104								
1	45	105	1.44	1.5	-0.06	4.0	1.65	1.9	-0.25	13.2
1	46	106								
1	47	107								
1	48	108								
1	49	109								
1	50	110	1.39	1.5	-0.11	7.3	1.59	1.8	-0.21	11.7
1	51	111								
1	52	112								
1	53	113								
1	54	114								
1	55	115	1.34	1.4	-0.06	4.3	1.54	1.7	-0.16	9.4
1	56	116								
1	57	117								
1	58	118								
1	59	119								
2	0	120	1.3	1.3	0.00	0.0	1.49	1.7	-0.21	12.4
Average of absolute values of % Difference, 5-yr:						5.08	10-yr: 4.98			
Std. Deviation of absolute values of % Difference, 5-yr:						2.65	10-yr: 3.47			
* Note: 1967 Study includes intensities up to and including the 2 hour (120 minute) duration; KDOT Study includes intensities up to and including the 24 hour duration										

(FILE NUMBER 1000.WK4)

TABLE VI - T

DO NOT TYPE

COMPOSITE METHOD DESIGN STORMS										
RETURN PERIOD =		1	YEARS							
RAIN INTERVAL =		15	MINUTES							
STORM DURATION			Average Intensity	Rainfall Amount	Rainfall Increments	Rainfall Increments	Descending Intensities	Rearranged Intensities	Computed Rearranged Rainfall	Manually Rearranged Rainfall
Hour	Minute	Cum. Min.	in/hr	inches	inches	in/hr	in/hr	in/hr	inches	inches
0	0	0								0
0	15	15	3.23	0.81	0.81	3.24	3.24	0.00	0.00	0.00
0	30	30	2.16	1.08	0.27	1.08	1.08	0.00	0.00	0.00
0	45	45	1.65	1.24	0.16	0.64	0.64	0.00	0.00	0.00
1	0	60	1.36	1.36	0.12	0.48	0.48	0.00	0.00	0.00
1	15	75	1.17	1.46	0.10	0.40	0.40	0.00	0.00	0.00
1	30	90	1.04	1.56	0.10	0.40	0.40	0.00	0.00	0.00
1	45	105	0.93	1.63	0.07	0.28	0.28	0.00	0.00	0.00
2	0	120	0.85	1.70	0.07	0.28	0.28	0.00	0.00	0.00
2	15	135	0.77	1.73	0.03	0.12	0.20	0.00	0.00	0.00
2	30	150	0.71	1.78	0.04	0.16	0.16	0.00	0.00	0.00
2	45	165	0.66	1.82	0.04	0.16	0.16	0.00	0.00	0.00
3	0	180	0.61	1.83	0.01	0.04	0.16	0.00	0.00	0.00
3	15	195	0.57	1.85	0.02	0.08	0.16	0.00	0.00	0.00
3	30	210	0.54	1.89	0.04	0.16	0.16	0.00	0.00	0.00
3	45	225	0.51	1.91	0.02	0.08	0.16	0.04	0.01	0.00
4	0	240	0.48	1.92	0.01	0.04	0.16	0.04	0.01	0.00
4	15	255	0.46	1.96	0.04	0.16	0.16	0.04	0.01	0.00
4	30	270	0.44	1.98	0.02	0.08	0.16	0.04	0.01	0.00
4	45	285	0.42	2.00	0.01	0.04	0.12	0.04	0.01	0.00
5	0	300	0.40	2.00	0.00	0.00	0.12	0.04	0.01	0.00
5	15	315	0.39	2.05	0.05	0.20	0.12	0.04	0.01	0.00
5	30	330	0.37	2.04	-0.01	0.00	0.12	0.04	0.01	0.00
5	45	345	0.36	2.07	0.04	0.16	0.12	0.04	0.01	0.00
6	0	360	0.35	2.10	0.03	0.12	0.12	0.08	0.02	0.00
6	15	375	0.34	2.13	0.03	0.12	0.12	0.08	0.02	0.02
6	30	390	0.33	2.15	0.02	0.08	0.12	0.08	0.02	0.02
6	45	405	0.32	2.16	0.01	0.04	0.12	0.08	0.02	0.02
7	0	420	0.31	2.17	0.01	0.04	0.12	0.08	0.02	0.02
7	15	435	0.30	2.18	0.01	0.04	0.12	0.08	0.02	0.02
7	30	450	0.29	2.18	0.00	0.00	0.12	0.12	0.03	0.03
7	45	465	0.29	2.21	0.03	0.12	0.12	0.12	0.03	0.03
8	0	480	0.28	2.24	0.03	0.12	0.12	0.12	0.03	0.03
8	15	495	0.28	2.27	0.03	0.12	0.12	0.12	0.03	0.03
8	30	510	0.27	2.30	0.03	0.12	0.12	0.12	0.03	0.03
8	45	525	0.27	2.32	0.02	0.08	0.12	0.12	0.03	0.03
9	0	540	0.26	2.34	0.02	0.08	0.12	0.12	0.03	0.03
9	15	555	0.26	2.36	0.02	0.08	0.12	0.12	0.03	0.03
9	30	570	0.25	2.38	0.02	0.08	0.08	0.12	0.03	0.03
9	45	585	0.25	2.39	0.01	0.04	0.08	0.16	0.04	0.04
10	0	600	0.24	2.40	0.01	0.04	0.08	0.16	0.04	0.04
10	15	615	0.24	2.41	0.01	0.04	0.08	0.16	0.04	0.04
10	30	630	0.23	2.42	0.01	0.04	0.08	0.16	0.04	0.04
10	45	645	0.23	2.42	0.00	0.00	0.08	0.16	0.04	0.04
11	0	660	0.22	2.42	0.00	0.00	0.08	0.28	0.07	0.07
11	15	675	0.22	2.42	0.00	0.00	0.08	0.40	0.10	0.10
11	30	690	0.21	2.42	0.00	0.00	0.08	0.48	0.12	0.12
11	45	705	0.21	2.41	-0.01	0.00	0.08	1.08	0.27	0.27
12	0	720	0.20	2.40	-0.01	0.00	0.08	3.24	0.81	0.81
12	15	735	0.20	2.42	0.02	0.08	0.08	0.64	0.16	0.16
12	30	750	0.20	2.44	0.02	0.08	0.04	0.40	0.10	0.10
12	45	765	0.19	2.45	0.02	0.08	0.04	0.28	0.07	0.07
13	0	780	0.19	2.47	0.02	0.08	0.04	0.20	0.05	0.05

COMPOSITE METHOD DESIGN STORMS

RETURN PERIOD = 2 YEARS
 RAIN INTERVAL = 15 MINUTES

STORM DURATION			Average Intensity in/hr	Rainfall Amount inches	Rainfall Increments inches	Rainfall Increments in/hr	Descending Intensities in/hr	Rearranged Intensities in/hr	Computed	Manually
Hour	Minute	Cum. Min.							Rearranged Rainfall inches	Rearranged Rainfall inches
0	0	0								0
0	15	15	3.80	0.95	0.95	3.80	3.80	0.00	0.00	0.00
0	30	30	2.62	1.31	0.36	1.44	1.44	0.00	0.00	0.00
0	45	45	2.03	1.52	0.21	0.84	0.84	0.00	0.00	0.00
1	0	60	1.68	1.68	0.16	0.64	0.64	0.00	0.00	0.00
1	15	75	1.44	1.80	0.12	0.48	0.48	0.00	0.00	0.00
1	30	90	1.27	1.91	0.10	0.40	0.40	0.00	0.00	0.00
1	45	105	1.14	2.00	0.09	0.36	0.36	0.00	0.00	0.00
2	0	120	1.03	2.06	0.06	0.24	0.24	0.00	0.00	0.00
2	15	135	0.94	2.12	0.06	0.24	0.24	0.00	0.00	0.00
2	30	150	0.87	2.18	0.06	0.24	0.24	0.00	0.00	0.00
2	45	165	0.80	2.20	0.03	0.12	0.24	0.00	0.00	0.00
3	0	180	0.75	2.25	0.05	0.20	0.20	0.00	0.00	0.00
3	15	195	0.70	2.28	0.03	0.12	0.20	0.00	0.00	0.00
3	30	210	0.66	2.31	0.04	0.16	0.20	0.00	0.00	0.00
3	45	225	0.63	2.36	0.05	0.20	0.20	0.00	0.00	0.00
4	0	240	0.60	2.40	0.04	0.16	0.20	0.04	0.01	0.00
4	15	255	0.57	2.42	0.02	0.08	0.20	0.04	0.01	0.00
4	30	270	0.54	2.43	0.01	0.04	0.20	0.04	0.01	0.00
4	45	285	0.52	2.47	0.04	0.16	0.16	0.04	0.01	0.00
5	0	300	0.50	2.50	0.03	0.12	0.16	0.04	0.01	0.00
5	15	315	0.48	2.52	0.02	0.08	0.16	0.04	0.01	0.00
5	30	330	0.46	2.53	0.01	0.04	0.16	0.04	0.01	0.00
5	45	345	0.45	2.59	0.06	0.24	0.16	0.08	0.02	0.00
6	0	360	0.43	2.58	-0.01	0.00	0.16	0.08	0.02	0.00
6	15	375	0.42	2.63	0.04	0.16	0.16	0.08	0.02	0.00
6	30	390	0.41	2.67	0.04	0.16	0.16	0.08	0.02	0.00
6	45	405	0.40	2.67	0.00	0.00	0.16	0.08	0.02	0.01
7	0	420	0.38	2.66	-0.01	0.00	0.16	0.12	0.03	0.02
7	15	435	0.37	2.68	0.02	0.08	0.16	0.12	0.03	0.03
7	30	450	0.36	2.70	0.02	0.08	0.16	0.12	0.03	0.03
7	45	465	0.36	2.75	0.05	0.20	0.12	0.12	0.03	0.03
8	0	480	0.35	2.80	0.05	0.20	0.12	0.12	0.03	0.03
8	15	495	0.34	2.81	0.01	0.04	0.12	0.16	0.04	0.04
8	30	510	0.33	2.81	0.00	0.00	0.12	0.16	0.04	0.04
8	45	525	0.33	2.84	0.04	0.16	0.12	0.16	0.04	0.04
9	0	540	0.32	2.88	0.04	0.16	0.12	0.16	0.04	0.04
9	15	555	0.32	2.91	0.03	0.12	0.12	0.16	0.04	0.04
9	30	570	0.31	2.95	0.03	0.12	0.12	0.16	0.04	0.04
9	45	585	0.30	2.93	-0.02	0.00	0.12	0.20	0.05	0.05
10	0	600	0.29	2.90	-0.02	0.00	0.12	0.20	0.05	0.05
10	15	615	0.29	2.92	0.02	0.08	0.12	0.20	0.05	0.05
10	30	630	0.28	2.94	0.02	0.08	0.08	0.20	0.05	0.05
10	45	645	0.28	2.96	0.02	0.08	0.08	0.24	0.06	0.06
11	0	660	0.27	2.97	0.01	0.04	0.08	0.24	0.06	0.06
11	15	675	0.27	2.98	0.01	0.04	0.08	0.40	0.10	0.10
11	30	690	0.26	2.99	0.01	0.04	0.08	0.64	0.16	0.16
11	45	705	0.26	3.00	0.01	0.04	0.08	1.44	0.36	0.36
12	0	720	0.25	3.00	0.00	0.00	0.08	3.80	0.95	0.95
12	15	735	0.25	3.03	0.03	0.12	0.08	0.84	0.21	0.21
12	30	750	0.25	3.06	0.03	0.12	0.08	0.48	0.12	0.12
12	45	765	0.24	3.09	0.03	0.12	0.04	0.36	0.09	0.09
13	0	780	0.24	3.12	0.03	0.12	0.04	0.24	0.06	0.06

COMPOSITE METHOD DESIGN STORMS

RETURN PERIOD = 5 YEARS
 RAIN INTERVAL = 15 MINUTES

STORM DURATION			Average	Rainfall	Rainfall	Rainfall	Descending	Computed			Manually
Hour	Minute	Cum. Min.	Intensity	Amount	Increments	Increments	Intensities	Rearranged	Rearranged	Rearranged	
			in/hr	inches	inches	in/hr	in/hr	in/hr	inches	inches	
0	0	0									
0	15	15	4.61	1.15	1.15	4.60	4.60	0.00	0.00	0.00	
0	30	30	3.29	1.65	0.49	1.96	1.96	0.00	0.00	0.00	1
0	45	45	2.60	1.95	0.30	1.20	1.20	0.00	0.00	0.00	
1	0	60	2.16	2.16	0.21	0.84	0.84	0.00	0.00	0.00	
1	15	75	1.85	2.31	0.15	0.60	0.60	0.00	0.00	0.00	
1	30	90	1.62	2.43	0.12	0.48	0.48	0.00	0.00	0.00	
1	45	105	1.44	2.52	0.09	0.36	0.36	0.00	0.00	0.00	
2	0	120	1.30	2.60	0.08	0.32	0.32	0.00	0.00	0.00	
2	15	135	1.19	2.68	0.08	0.32	0.32	0.00	0.00	0.00	8
2	30	150	1.10	2.75	0.07	0.28	0.32	0.00	0.00	0.00	
2	45	165	1.02	2.81	0.06	0.24	0.28	0.04	0.01	0.00	
3	0	180	0.95	2.85	0.04	0.16	0.28	0.04	0.01	0.00	
3	15	195	0.89	2.89	0.04	0.16	0.24	0.04	0.01	0.00	
3	30	210	0.84	2.94	0.05	0.20	0.24	0.04	0.01	0.00	
3	45	225	0.80	3.00	0.06	0.24	0.20	0.04	0.01	0.00	
4	0	240	0.76	3.04	0.04	0.16	0.20	0.04	0.01	0.01	
4	15	255	0.72	3.06	0.02	0.08	0.20	0.04	0.01	0.01	16
4	30	270	0.69	3.11	0.04	0.16	0.20	0.04	0.01	0.01	17
4	45	285	0.66	3.14	0.03	0.12	0.20	0.08	0.02	0.02	
5	0	300	0.64	3.20	0.07	0.28	0.20	0.08	0.02	0.02	
5	15	315	0.61	3.20	0.00	0.00	0.20	0.08	0.02	0.02	
5	30	330	0.59	3.25	0.04	0.16	0.20	0.08	0.02	0.02	
5	45	345	0.57	3.28	0.03	0.12	0.20	0.08	0.02	0.02	
6	0	360	0.56	3.36	0.08	0.32	0.16	0.08	0.02	0.02	24
6	15	375	0.54	3.38	0.01	0.04	0.16	0.08	0.02	0.02	
6	30	390	0.52	3.38	0.01	0.04	0.16	0.08	0.02	0.02	
6	45	405	0.51	3.41	0.03	0.12	0.16	0.12	0.03	0.03	
7	0	420	0.49	3.43	0.02	0.08	0.16	0.12	0.03	0.03	
7	15	435	0.48	3.48	0.05	0.20	0.16	0.12	0.03	0.03	
7	30	450	0.47	3.53	0.05	0.20	0.16	0.12	0.03	0.03	
7	45	465	0.46	3.57	0.04	0.16	0.16	0.12	0.03	0.03	
8	0	480	0.45	3.60	0.04	0.16	0.16	0.16	0.04	0.04	
8	15	495	0.44	3.63	0.03	0.12	0.16	0.16	0.04	0.04	32
8	30	510	0.43	3.66	0.02	0.08	0.16	0.16	0.04	0.04	
8	45	525	0.42	3.68	0.02	0.08	0.12	0.16	0.04	0.04	
9	0	540	0.41	3.69	0.01	0.04	0.12	0.16	0.04	0.04	
9	15	555	0.40	3.70	0.01	0.04	0.12	0.20	0.05	0.05	
9	30	570	0.39	3.71	0.00	0.00	0.12	0.20	0.05	0.05	
9	45	585	0.39	3.75	0.05	0.20	0.12	0.20	0.05	0.05	
10	0	600	0.38	3.80	0.05	0.20	0.12	0.20	0.05	0.05	40
10	15	615	0.38	3.84	0.04	0.16	0.12	0.24	0.06	0.06	
10	30	630	0.37	3.89	0.04	0.16	0.12	0.28	0.07	0.07	
10	45	645	0.36	3.87	-0.01	0.00	0.12	0.32	0.08	0.08	
11	0	660	0.35	3.85	-0.02	0.00	0.08	0.32	0.08	0.08	
11	15	675	0.35	3.88	0.03	0.12	0.08	0.48	0.12	0.12	
11	30	690	0.34	3.91	0.03	0.12	0.08	0.84	0.21	0.21	
11	45	705	0.34	3.94	0.03	0.12	0.08	1.96	0.49	0.49	
12	0	720	0.33	3.96	0.02	0.08	0.08	4.60	1.15	1.15	48
12	15	735	0.33	3.98	0.02	0.08	0.08	1.20	0.30	0.30	
12	30	750	0.32	4.00	0.02	0.08	0.08	0.60	0.15	0.15	
12	45	765	0.32	4.02	0.02	0.08	0.08	0.36	0.09	0.09	
13	0	780	0.31	4.03	0.01	0.04	0.08	0.32	0.08	0.08	
13	15	795	0.31	4.04	0.01	0.04	0.08	0.28	0.07	0.07	

13	30	810	0.30	4.05	0.01	0.04	0.08	0.24	0.06	0.06	
13	45	825	0.30	4.06	0.01	0.04	0.08	0.20	0.05	0.05	
14	0	840	0.29	4.06	0.00	0.00	0.08	0.20	0.05	0.05	56
14	15	855	0.29	4.10	0.04	0.16	0.08	0.20	0.05	0.05	
14	30	870	0.29	4.13	0.04	0.16	0.08	0.20	0.05	0.05	
14	45	885	0.28	4.17	0.03	0.12	0.08	0.20	0.05	0.05	
15	0	900	0.28	4.20	0.03	0.12	0.04	0.16	0.04	0.04	
15	15	915	0.28	4.19	-0.01	0.00	0.04	0.16	0.04	0.04	
15	30	930	0.27	4.18	-0.01	0.00	0.04	0.16	0.04	0.04	
15	45	945	0.27	4.17	-0.01	0.00	0.04	0.16	0.04	0.04	
16	0	960	0.26	4.16	-0.01	0.00	0.04	0.16	0.04	0.04	64
16	15	975	0.26	4.18	0.02	0.08	0.04	0.12	0.03	0.03	
16	30	990	0.26	4.21	0.02	0.08	0.04	0.12	0.03	0.03	
16	45	1005	0.25	4.23	0.02	0.08	0.04	0.12	0.03	0.03	
17	0	1020	0.25	4.25	0.02	0.08	0.04	0.12	0.03	0.03	
17	15	1035	0.25	4.27	0.02	0.08	0.04	0.12	0.03	0.03	
17	30	1050	0.25	4.29	0.02	0.08	0.04	0.08	0.02	0.02	
17	45	1065	0.24	4.30	0.02	0.08	0.04	0.08	0.02	0.02	
18	0	1080	0.24	4.32	0.02	0.08	0.04	0.08	0.02	0.02	72
18	15	1095	0.24	4.33	0.01	0.04	0.04	0.08	0.02	0.02	
18	30	1110	0.24	4.35	0.01	0.04	0.04	0.08	0.02	0.02	
18	45	1125	0.23	4.36	0.01	0.04	0.04	0.08	0.02	0.02	
19	0	1140	0.23	4.37	0.01	0.04	0.00	0.08	0.02	0.02	
19	15	1155	0.23	4.38	0.01	0.04	0.00	0.08	0.02	0.02	
19	30	1170	0.23	4.39	0.01	0.04	0.00	0.04	0.01	0.01	
19	45	1185	0.22	4.39	0.01	0.04	0.00	0.04	0.01	0.01	
20	0	1200	0.22	4.40	0.01	0.04	0.00	0.04	0.01	0.01	80
20	15	1215	0.22	4.40	0.00	0.00	0.00	0.04	0.01	0.01	
20	30	1230	0.22	4.41	0.00	0.00	0.00	0.04	0.01	0.01	
20	45	1245	0.21	4.41	0.00	0.00	0.00	0.04	0.01	0.01	
21	0	1260	0.21	4.41	0.00	0.00	0.00	0.04	0.01	0.01	
21	15	1275	0.21	4.41	0.00	0.00	0.00	0.04	0.01	0.01	
21	30	1290	0.21	4.41	0.00	0.00	0.00	0.00	0.00	0.00	
21	45	1305	0.20	4.40	0.00	0.00	0.00	0.00	0.00	0.00	
22	0	1320	0.20	4.40	0.00	0.00	0.00	0.00	0.00	0.00	88
22	15	1335	0.20	4.39	-0.01	0.00	0.00	0.00	0.00	0.00	
22	30	1350	0.20	4.39	-0.01	0.00	0.00	0.00	0.00	0.00	
22	45	1365	0.19	4.38	-0.01	0.00	0.00	0.00	0.00	0.00	
23	0	1380	0.19	4.37	-0.01	0.00	0.00	0.00	0.00	0.00	
23	15	1395	0.19	4.42	0.05	0.20	0.00	0.00	0.00	0.00	
23	30	1410	0.19	4.47	0.05	0.20	0.00	0.00	0.00	0.00	
23	45	1425	0.19	4.51	0.05	0.20	0.00	0.00	0.00	0.00	
24	0	1440	0.19	4.56	0.05	0.20	0.00	0.00	0.00	0.00	96
								Total rain, inches:	4.65	4.56	
								KDOT Rainfall Intensity Table:	4.56		

COMPOSITE METHOD DESIGN STORMS

RETURN PERIOD = 10 YEARS
 RAIN INTERVAL = 15 MINUTES

STORM DURATION			Average	Rainfall	Rainfall	Rainfall	Descending	Computed	Manually	
Hour	Minute	Cum. Min.	Intensity in/hr	Amount inches	Increments inches	Increments in/hr	Intensities in/hr	Rearranged Intensities in/hr	Rearranged Rainfall inches	Rearranged Rainfall inches
0	0	0								0
0	15	15	5.19	1.30	1.30	5.20	5.20	0.00	0.00	0.00
0	30	30	3.77	1.89	0.59	2.36	2.36	0.00	0.00	0.00
0	45	45	3.00	2.25	0.37	1.48	1.48	0.00	0.00	0.00
1	0	60	2.49	2.49	0.24	0.96	0.96	0.00	0.00	0.00
1	15	75	2.13	2.66	0.17	0.68	0.68	0.00	0.00	0.00
1	30	90	1.86	2.79	0.13	0.52	0.52	0.00	0.00	0.00
1	45	105	1.65	2.89	0.10	0.40	0.40	0.00	0.00	0.00
2	0	120	1.49	2.98	0.09	0.36	0.36	0.00	0.00	0.00
2	15	135	1.36	3.06	0.08	0.32	0.36	0.00	0.00	0.00
2	30	150	1.26	3.15	0.09	0.36	0.32	0.00	0.00	0.00
2	45	165	1.17	3.22	0.07	0.28	0.32	0.04	0.01	0.00
3	0	180	1.09	3.27	0.05	0.20	0.28	0.04	0.01	0.00
3	15	195	1.03	3.35	0.08	0.32	0.28	0.04	0.01	0.00
3	30	210	0.97	3.40	0.05	0.20	0.28	0.04	0.01	0.00
3	45	225	0.92	3.45	0.05	0.20	0.28	0.04	0.01	0.00
4	0	240	0.87	3.48	0.03	0.12	0.24	0.04	0.01	0.00
4	15	255	0.83	3.53	0.05	0.20	0.24	0.04	0.01	0.00
4	30	270	0.80	3.60	0.07	0.28	0.24	0.04	0.01	0.01
4	45	285	0.77	3.66	0.06	0.24	0.20	0.08	0.02	0.02
5	0	300	0.74	3.70	0.04	0.16	0.20	0.08	0.02	0.02
5	15	315	0.71	3.73	0.03	0.12	0.20	0.08	0.02	0.02
5	30	330	0.68	3.74	0.01	0.04	0.20	0.08	0.02	0.02
5	45	345	0.66	3.80	0.06	0.24	0.20	0.08	0.02	0.02
6	0	360	0.64	3.84	0.04	0.16	0.20	0.08	0.02	0.02
6	15	375	0.62	3.88	0.04	0.16	0.20	0.12	0.03	0.03
6	30	390	0.60	3.90	0.03	0.12	0.20	0.12	0.03	0.03
6	45	405	0.59	3.95	0.05	0.20	0.16	0.12	0.03	0.03
7	0	420	0.57	3.99	0.04	0.16	0.16	0.12	0.03	0.03
7	15	435	0.56	4.02	0.03	0.12	0.16	0.12	0.03	0.03
7	30	450	0.54	4.05	0.03	0.12	0.16	0.12	0.03	0.03
7	45	465	0.53	4.11	0.06	0.24	0.16	0.12	0.03	0.03
8	0	480	0.52	4.16	0.05	0.20	0.16	0.16	0.04	0.04
8	15	495	0.51	4.17	0.01	0.04	0.16	0.16	0.04	0.04
8	30	510	0.49	4.17	0.00	0.00	0.12	0.16	0.04	0.04
8	45	525	0.48	4.20	0.04	0.16	0.12	0.20	0.05	0.05
9	0	540	0.47	4.23	0.03	0.12	0.12	0.20	0.05	0.05
9	15	555	0.47	4.30	0.07	0.28	0.12	0.20	0.05	0.05
9	30	570	0.46	4.37	0.07	0.28	0.12	0.20	0.05	0.05
9	45	585	0.45	4.39	0.02	0.08	0.12	0.24	0.06	0.06
10	0	600	0.44	4.40	0.01	0.04	0.12	0.24	0.06	0.06
10	15	615	0.43	4.41	0.01	0.04	0.12	0.28	0.07	0.07
10	30	630	0.42	4.41	0.00	0.00	0.12	0.28	0.07	0.07
10	45	645	0.42	4.46	0.05	0.20	0.12	0.32	0.08	0.08
11	0	660	0.41	4.51	0.05	0.20	0.12	0.36	0.09	0.09
11	15	675	0.40	4.50	-0.01	0.00	0.12	0.52	0.13	0.13
11	30	690	0.39	4.49	-0.01	0.00	0.12	0.96	0.24	0.24
11	45	705	0.39	4.52	0.04	0.16	0.12	2.36	0.59	0.59
12	0	720	0.38	4.56	0.04	0.16	0.08	5.20	1.30	1.30
12	15	735	0.38	4.59	0.03	0.12	0.08	1.48	0.37	0.37
12	30	750	0.37	4.63	0.03	0.12	0.08	0.68	0.17	0.17
12	45	765	0.37	4.65	0.03	0.12	0.08	0.40	0.10	0.10
13	0	780	0.36	4.68	0.03	0.12	0.08	0.36	0.09	0.09

13	15	795	0.36	4.70	0.02	0.08	0.08	0.32	0.08	0.08
13	30	810	0.35	4.73	0.02	0.08	0.08	0.28	0.07	0.07
13	45	825	0.35	4.74	0.02	0.08	0.08	0.28	0.07	0.07
14	0	840	0.34	4.76	0.02	0.08	0.08	0.24	0.06	0.06
14	15	855	0.34	4.77	0.01	0.04	0.08	0.20	0.05	0.05
14	30	870	0.33	4.78	0.01	0.04	0.08	0.20	0.05	0.05
14	45	885	0.33	4.79	0.01	0.04	0.04	0.20	0.05	0.05
15	0	900	0.32	4.80	0.01	0.04	0.04	0.20	0.05	0.05
15	15	915	0.32	4.80	0.00	0.00	0.04	0.16	0.04	0.04
15	30	930	0.31	4.81	0.00	0.00	0.04	0.16	0.04	0.04
15	45	945	0.31	4.80	0.00	0.00	0.04	0.16	0.04	0.04
16	0	960	0.30	4.80	0.00	0.00	0.04	0.16	0.04	0.04
16	15	975	0.30	4.83	0.03	0.12	0.04	0.12	0.03	0.03
16	30	990	0.30	4.87	0.03	0.12	0.04	0.12	0.03	0.03
16	45	1005	0.29	4.90	0.03	0.12	0.04	0.12	0.03	0.03
17	0	1020	0.29	4.93	0.03	0.12	0.04	0.12	0.03	0.03
17	15	1035	0.29	4.92	-0.01	0.00	0.04	0.12	0.03	0.03
17	30	1050	0.28	4.90	-0.02	0.00	0.04	0.12	0.03	0.03
17	45	1065	0.28	4.88	-0.02	0.00	0.04	0.12	0.03	0.03
18	0	1080	0.27	4.86	-0.02	0.00	0.04	0.08	0.02	0.02
18	15	1095	0.27	4.88	0.02	0.08	0.04	0.08	0.02	0.02
18	30	1110	0.27	4.90	0.02	0.08	0.04	0.08	0.02	0.02
18	45	1125	0.26	4.92	0.02	0.08	0.00	0.08	0.02	0.02
19	0	1140	0.26	4.94	0.02	0.08	0.00	0.08	0.02	0.02
19	15	1155	0.26	4.96	0.02	0.08	0.00	0.08	0.02	0.02
19	30	1170	0.26	4.97	0.02	0.08	0.00	0.04	0.01	0.01
19	45	1185	0.25	4.99	0.01	0.04	0.00	0.04	0.01	0.00
20	0	1200	0.25	5.00	0.01	0.04	0.00	0.04	0.01	0.00
20	15	1215	0.25	5.01	0.01	0.04	0.00	0.04	0.01	0.00
20	30	1230	0.25	5.02	0.01	0.04	0.00	0.04	0.01	0.00
20	45	1245	0.24	5.03	0.01	0.04	0.00	0.04	0.01	0.00
21	0	1260	0.24	5.04	0.01	0.04	0.00	0.04	0.01	0.00
21	15	1275	0.24	5.05	0.01	0.04	0.00	0.00	0.00	0.00
21	30	1290	0.24	5.05	0.01	0.04	0.00	0.00	0.00	0.00
21	45	1305	0.23	5.06	0.00	0.00	0.00	0.00	0.00	0.00
22	0	1320	0.23	5.06	0.00	0.00	0.00	0.00	0.00	0.00
22	15	1335	0.23	5.06	0.00	0.00	0.00	0.00	0.00	0.00
22	30	1350	0.23	5.06	0.00	0.00	0.00	0.00	0.00	0.00
22	45	1365	0.22	5.06	0.00	0.00	0.00	0.00	0.00	0.00
23	0	1380	0.22	5.06	0.00	0.00	0.00	0.00	0.00	0.00
23	15	1395	0.22	5.06	0.00	0.00	0.00	0.00	0.00	0.00
23	30	1410	0.22	5.05	0.00	0.00	0.00	0.00	0.00	0.00
23	45	1425	0.21	5.05	-0.01	0.00	0.00	0.00	0.00	0.00
24	0	1440	0.21	5.04	-0.01	0.00	0.00	0.00	0.00	0.00
								Total rain, inches:	5.18	5.04
								KDOT Rainfall Intensity Table:		5.04

COMPOSITE METHOD DESIGN STORMS

RETURN PERIOD = 25 YEARS
 RAIN INTERVAL = 15 MINUTES

STORM DURATION			Average Intensity	Rainfall Amount	Rainfall Increments	Rainfall Increments	Descending Intensities	Rearranged Intensities	Computed Rearranged Rainfall	Manually Rearranged Rainfall
Hour	Minute	Cum. Min.	in/hr	inches	inches	in/hr	in/hr	in/hr	inches	inches
0	0	0								0
0	15	15	6.04	1.51	1.51	6.04	6.04	0.00	0.00	0.00
0	30	30	4.45	2.23	0.72	2.88	2.88	0.00	0.00	0.00
0	45	45	3.56	2.67	0.44	1.76	1.76	0.00	0.00	0.00
1	0	60	2.96	2.96	0.29	1.16	1.16	0.00	0.00	0.00
1	15	75	2.52	3.15	0.19	0.76	0.76	0.00	0.00	0.00
1	30	90	2.20	3.30	0.15	0.60	0.60	0.00	0.00	0.00
1	45	105	1.95	3.41	0.11	0.44	0.44	0.04	0.01	0.00
2	0	120	1.76	3.52	0.11	0.44	0.44	0.04	0.01	0.00
2	15	135	1.61	3.62	0.10	0.40	0.40	0.04	0.01	0.00
2	30	150	1.48	3.70	0.08	0.32	0.40	0.04	0.01	0.01
2	45	165	1.38	3.80	0.09	0.36	0.36	0.04	0.01	0.01
3	0	180	1.29	3.87	0.08	0.32	0.36	0.04	0.01	0.01
3	15	195	1.22	3.97	0.10	0.40	0.32	0.04	0.01	0.01
3	30	210	1.15	4.03	0.06	0.24	0.32	0.08	0.02	0.02
3	45	225	1.09	4.09	0.06	0.24	0.28	0.08	0.02	0.02
4	0	240	1.04	4.16	0.07	0.28	0.28	0.08	0.02	0.02
4	15	255	0.99	4.21	0.05	0.20	0.28	0.08	0.02	0.02
4	30	270	0.95	4.28	0.07	0.28	0.28	0.08	0.02	0.02
4	45	285	0.91	4.32	0.05	0.20	0.28	0.08	0.02	0.02
5	0	300	0.87	4.35	0.03	0.12	0.24	0.08	0.02	0.02
5	15	315	0.84	4.41	0.06	0.24	0.24	0.08	0.02	0.02
5	30	330	0.81	4.46	0.04	0.16	0.24	0.12	0.03	0.03
5	45	345	0.79	4.54	0.09	0.36	0.24	0.12	0.03	0.03
6	0	360	0.76	4.56	0.02	0.08	0.24	0.12	0.03	0.03
6	15	375	0.74	4.63	0.07	0.28	0.24	0.12	0.03	0.03
6	30	390	0.72	4.68	0.06	0.24	0.20	0.12	0.03	0.03
6	45	405	0.70	4.73	0.05	0.20	0.20	0.16	0.04	0.04
7	0	420	0.68	4.76	0.03	0.12	0.20	0.16	0.04	0.04
7	15	435	0.67	4.82	0.06	0.24	0.20	0.16	0.04	0.04
7	30	450	0.65	4.88	0.05	0.20	0.20	0.16	0.04	0.04
7	45	465	0.64	4.92	0.05	0.20	0.20	0.20	0.05	0.05
8	0	480	0.62	4.96	0.04	0.16	0.20	0.20	0.05	0.05
8	15	495	0.61	4.99	0.03	0.12	0.20	0.20	0.05	0.05
8	30	510	0.59	5.02	0.02	0.08	0.20	0.20	0.05	0.05
8	45	525	0.58	5.08	0.06	0.24	0.16	0.20	0.05	0.05
9	0	540	0.57	5.13	0.05	0.20	0.16	0.24	0.06	0.06
9	15	555	0.56	5.13	0.00	0.00	0.16	0.24	0.06	0.06
9	30	570	0.54	5.13	0.00	0.00	0.16	0.24	0.06	0.06
9	45	585	0.53	5.17	0.04	0.16	0.16	0.28	0.07	0.07
10	0	600	0.52	5.20	0.03	0.12	0.16	0.28	0.07	0.07
10	15	615	0.51	5.23	0.03	0.12	0.16	0.32	0.08	0.08
10	30	630	0.50	5.25	0.02	0.08	0.16	0.36	0.09	0.09
10	45	645	0.50	5.32	0.07	0.28	0.12	0.40	0.10	0.10
11	0	660	0.49	5.39	0.07	0.28	0.12	0.44	0.11	0.11
11	15	675	0.48	5.40	0.01	0.04	0.12	0.60	0.15	0.15
11	30	690	0.47	5.41	0.00	0.00	0.12	1.16	0.29	0.29
11	45	705	0.46	5.41	0.00	0.00	0.12	2.88	0.72	0.72
12	0	720	0.45	5.40	0.00	0.00	0.12	6.04	1.51	1.51
12	15	735	0.45	5.45	0.05	0.20	0.12	1.76	0.44	0.44
12	30	750	0.44	5.50	0.05	0.20	0.12	0.76	0.19	0.19
12	45	765	0.44	5.55	0.05	0.20	0.12	0.44	0.11	0.11
13	0	780	0.43	5.59	0.04	0.16	0.12	0.40	0.10	0.10

COMPOSITE METHOD DESIGN STORMS

RETURN PERIOD = 50 YEARS
 RAIN INTERVAL = 15 MINUTES

										Computed	Manually
STORM DURATION			Average	Rainfall	Rainfall	Rainfall	Descending	Rearranged	Rearranged	Rearranged	
Hour	Minute	Cum. Min.	Intensity	Amount	increments	increments	Intensities	Intensities	Rainfall	Rainfall	
			in/hr	inches	inches	in/hr	in/hr	in/hr	inches	inches	
0	0	0								0	
0	15	15	6.70	1.68	1.68	6.72	6.72	0.00	0.00	0.00	
0	30	30	4.98	2.49	0.82	3.28	3.28	0.00	0.00	0.00	
0	45	45	4.00	3.00	0.51	2.04	2.04	0.00	0.00	0.00	
1	0	60	3.33	3.33	0.33	1.32	1.32	0.00	0.00	0.00	
1	15	75	2.83	3.54	0.21	0.84	0.84	0.04	0.01	0.00	
1	30	90	2.46	3.69	0.15	0.60	0.60	0.04	0.01	0.00	
1	45	105	2.19	3.83	0.14	0.56	0.56	0.04	0.01	0.00	
2	0	120	1.97	3.94	0.11	0.44	0.44	0.04	0.01	0.00	
2	15	135	1.80	4.05	0.11	0.44	0.44	0.04	0.01	0.00	
2	30	150	1.66	4.15	0.10	0.40	0.44	0.08	0.02	0.02	
2	45	165	1.55	4.26	0.11	0.44	0.40	0.08	0.02	0.02	
3	0	180	1.45	4.35	0.09	0.36	0.40	0.08	0.02	0.02	
3	15	195	1.36	4.42	0.07	0.28	0.36	0.08	0.02	0.02	
3	30	210	1.29	4.52	0.09	0.36	0.36	0.08	0.02	0.02	
3	45	225	1.22	4.58	0.06	0.24	0.36	0.08	0.02	0.02	
4	0	240	1.16	4.64	0.07	0.28	0.32	0.08	0.02	0.02	
4	15	255	1.11	4.72	0.08	0.32	0.32	0.08	0.02	0.02	
4	30	270	1.06	4.77	0.05	0.20	0.32	0.08	0.02	0.02	
4	45	285	1.02	4.85	0.08	0.32	0.32	0.08	0.02	0.02	
5	0	300	0.98	4.90	0.06	0.24	0.28	0.08	0.02	0.02	
5	15	315	0.95	4.99	0.09	0.36	0.28	0.08	0.02	0.02	
5	30	330	0.91	5.01	0.02	0.08	0.28	0.12	0.03	0.03	
5	45	345	0.88	5.06	0.05	0.20	0.28	0.12	0.03	0.03	
6	0	360	0.86	5.16	0.10	0.40	0.24	0.12	0.03	0.03	
6	15	375	0.84	5.22	0.06	0.24	0.24	0.12	0.03	0.03	
6	30	390	0.81	5.27	0.05	0.20	0.24	0.12	0.03	0.03	
6	45	405	0.79	5.30	0.03	0.12	0.20	0.16	0.04	0.04	
7	0	420	0.76	5.32	0.02	0.08	0.20	0.16	0.04	0.04	
7	15	435	0.75	5.40	0.08	0.32	0.20	0.16	0.04	0.04	
7	30	450	0.73	5.48	0.07	0.28	0.20	0.16	0.04	0.04	
7	45	465	0.71	5.50	0.03	0.12	0.20	0.16	0.04	0.04	
8	0	480	0.69	5.52	0.02	0.08	0.20	0.20	0.05	0.05	
8	15	495	0.68	5.57	0.05	0.20	0.20	0.20	0.05	0.05	
8	30	510	0.66	5.61	0.04	0.16	0.16	0.20	0.05	0.05	
8	45	525	0.65	5.69	0.08	0.32	0.16	0.24	0.06	0.06	
9	0	540	0.64	5.76	0.07	0.28	0.16	0.24	0.06	0.06	
9	15	555	0.63	5.78	0.02	0.08	0.16	0.28	0.07	0.07	
9	30	570	0.61	5.80	0.01	0.04	0.16	0.28	0.07	0.07	
9	45	585	0.60	5.85	0.05	0.20	0.16	0.32	0.08	0.08	
10	0	600	0.59	5.90	0.05	0.20	0.16	0.32	0.08	0.08	
10	15	615	0.58	5.95	0.05	0.20	0.16	0.36	0.09	0.09	
10	30	630	0.57	5.99	0.04	0.16	0.16	0.40	0.10	0.10	
10	45	645	0.56	6.02	0.03	0.12	0.16	0.44	0.11	0.11	
11	0	660	0.55	6.05	0.03	0.12	0.12	0.44	0.11	0.11	
11	15	675	0.54	6.08	0.02	0.08	0.12	0.60	0.15	0.15	
11	30	690	0.53	6.10	0.02	0.08	0.12	1.32	0.33	0.33	
11	45	705	0.52	6.11	0.01	0.04	0.12	3.28	0.82	0.82	
12	0	720	0.51	6.12	0.01	0.04	0.12	6.72	1.68	1.68	
12	15	735	0.50	6.16	0.04	0.16	0.12	2.04	0.51	0.51	
12	30	750	0.50	6.19	0.03	0.12	0.12	0.84	0.21	0.21	
12	45	765	0.49	6.22	0.03	0.12	0.12	0.56	0.14	0.14	
13	0	780	0.48	6.24	0.02	0.08	0.12	0.44	0.11	0.11	

13	15	795	0.47	6.26	0.02	0.08	0.12	0.40	0.10	0.10
13	30	810	0.47	6.28	0.02	0.08	0.12	0.36	0.09	0.09
13	45	825	0.46	6.29	0.01	0.04	0.12	0.36	0.09	0.09
14	0	840	0.45	6.30	0.01	0.04	0.08	0.32	0.08	0.08
14	15	855	0.45	6.34	0.04	0.16	0.08	0.32	0.08	0.08
14	30	870	0.44	6.38	0.04	0.16	0.08	0.28	0.07	0.07
14	45	885	0.44	6.42	0.04	0.16	0.08	0.28	0.07	0.07
15	0	900	0.43	6.45	0.03	0.12	0.08	0.24	0.06	0.06
15	15	915	0.43	6.48	0.03	0.12	0.08	0.20	0.05	0.05
15	30	930	0.42	6.51	0.03	0.12	0.08	0.20	0.05	0.05
15	45	945	0.42	6.54	0.03	0.12	0.08	0.20	0.05	0.05
16	0	960	0.41	6.56	0.02	0.08	0.08	0.20	0.05	0.05
16	15	975	0.41	6.58	0.02	0.08	0.08	0.16	0.04	0.04
16	30	990	0.40	6.60	0.02	0.08	0.08	0.16	0.04	0.04
16	45	1005	0.40	6.62	0.02	0.08	0.08	0.16	0.04	0.04
17	0	1020	0.39	6.63	0.01	0.04	0.08	0.16	0.04	0.04
17	15	1035	0.39	6.64	0.01	0.04	0.08	0.16	0.04	0.04
17	30	1050	0.38	6.65	0.01	0.04	0.08	0.12	0.03	0.03
17	45	1065	0.38	6.66	0.01	0.04	0.08	0.12	0.03	0.03
18	0	1080	0.37	6.66	0.00	0.00	0.08	0.12	0.03	0.03
18	15	1095	0.37	6.66	0.00	0.00	0.08	0.12	0.03	0.03
18	30	1110	0.36	6.66	0.00	0.00	0.08	0.12	0.03	0.03
18	45	1125	0.36	6.66	0.00	0.00	0.08	0.12	0.03	0.03
19	0	1140	0.35	6.65	-0.01	0.00	0.08	0.08	0.02	0.02
19	15	1155	0.35	6.69	0.04	0.16	0.04	0.08	0.02	0.02
19	30	1170	0.35	6.73	0.04	0.16	0.04	0.08	0.02	0.02
19	45	1185	0.34	6.76	0.04	0.16	0.04	0.08	0.02	0.02
20	0	1200	0.34	6.80	0.04	0.16	0.04	0.08	0.02	0.02
20	15	1215	0.34	6.78	-0.02	0.00	0.04	0.08	0.02	0.02
20	30	1230	0.33	6.77	-0.02	0.00	0.04	0.08	0.02	0.02
20	45	1245	0.33	6.74	-0.02	0.00	0.04	0.08	0.02	0.02
21	0	1260	0.32	6.72	-0.02	0.00	0.04	0.08	0.02	0.02
21	15	1275	0.32	6.75	0.03	0.12	0.04	0.08	0.02	0.02
21	30	1290	0.32	6.77	0.03	0.12	0.04	0.04	0.01	0.01
21	45	1305	0.31	6.80	0.02	0.08	0.04	0.04	0.01	0.00
22	0	1320	0.31	6.82	0.02	0.08	0.00	0.04	0.01	0.00
22	15	1335	0.31	6.84	0.02	0.08	0.00	0.04	0.01	0.00
22	30	1350	0.31	6.86	0.02	0.08	0.00	0.04	0.01	0.00
22	45	1365	0.30	6.88	0.02	0.08	0.00	0.04	0.01	0.00
23	0	1380	0.30	6.90	0.02	0.08	0.00	0.00	0.00	0.00
23	15	1395	0.30	6.92	0.02	0.08	0.00	0.00	0.00	0.00
23	30	1410	0.30	6.93	0.02	0.08	0.00	0.00	0.00	0.00
23	45	1425	0.29	6.95	0.01	0.04	0.00	0.00	0.00	0.00
24	0	1440	0.29	6.96	0.01	0.04	0.00	0.00	0.00	0.00
								Total rain, inches:	7.06	6.96
								KDOT Rainfall Intensity Table:		6.96

COMPOSITE METHOD DESIGN STORMS

RETURN PERIOD = 100 YEARS
 RAIN INTERVAL = 15 MINUTES

			Computed								Manually
STORM DURATION			Average	Rainfall	Rainfall	Rainfall	Descending	Rearranged	Rearranged	Rearranged	
Hour	Minute	Cum. Min.	Intensity	Amount	Increments	Increments	Intensities	Intensities	Rainfall	Rainfall	
			in/hr	inches	inches	in/hr	in/hr	in/hr	inches	inches	
0	0	0								0	
0	15	15	7.36	1.84	1.84	7.36	7.36	0.00	0.00	0.00	
0	30	30	5.50	2.75	0.91	3.64	3.64	0.00	0.00	0.00	
0	45	45	4.43	3.32	0.57	2.28	2.28	0.00	0.00	0.00	
1	0	60	3.69	3.69	0.37	1.48	1.48	0.00	0.00	0.00	
1	15	75	3.14	3.93	0.24	0.96	0.96	0.04	0.01	0.00	
1	30	90	2.73	4.10	0.17	0.68	0.68	0.04	0.01	0.00	
1	45	105	2.42	4.24	0.14	0.56	0.56	0.04	0.01	0.00	
2	0	120	2.18	4.36	0.13	0.52	0.52	0.04	0.01	0.00	
2	15	135	1.99	4.48	0.12	0.48	0.48	0.04	0.01	0.00	
2	30	150	1.84	4.60	0.12	0.48	0.48	0.08	0.02	0.02	
2	45	165	1.71	4.70	0.10	0.40	0.44	0.08	0.02	0.02	
3	0	180	1.60	4.80	0.10	0.40	0.40	0.08	0.02	0.02	
3	15	195	1.51	4.91	0.11	0.44	0.40	0.08	0.02	0.02	
3	30	210	1.43	5.01	0.10	0.40	0.40	0.08	0.02	0.02	
3	45	225	1.35	5.06	0.06	0.24	0.40	0.08	0.02	0.02	
4	0	240	1.29	5.16	0.10	0.40	0.32	0.08	0.02	0.02	
4	15	255	1.23	5.23	0.07	0.28	0.32	0.12	0.03	0.03	
4	30	270	1.18	5.31	0.08	0.32	0.32	0.12	0.03	0.03	
4	45	285	1.13	5.37	0.06	0.24	0.32	0.12	0.03	0.03	
5	0	300	1.09	5.45	0.08	0.32	0.28	0.12	0.03	0.03	
5	15	315	1.05	5.51	0.06	0.24	0.28	0.12	0.03	0.03	
5	30	330	1.01	5.56	0.04	0.16	0.28	0.12	0.03	0.03	
5	45	345	0.98	5.64	0.08	0.32	0.28	0.12	0.03	0.03	
6	0	360	0.95	5.70	0.06	0.24	0.24	0.16	0.04	0.04	
6	15	375	0.93	5.78	0.08	0.32	0.24	0.16	0.04	0.04	
6	30	390	0.90	5.85	0.07	0.28	0.24	0.16	0.04	0.04	
6	45	405	0.88	5.91	0.06	0.24	0.24	0.16	0.04	0.04	
7	0	420	0.85	5.95	0.04	0.16	0.24	0.16	0.04	0.04	
7	15	435	0.83	6.02	0.07	0.28	0.24	0.16	0.04	0.04	
7	30	450	0.81	6.08	0.06	0.24	0.24	0.20	0.05	0.05	
7	45	465	0.79	6.12	0.05	0.20	0.24	0.20	0.05	0.05	
8	0	480	0.77	6.16	0.04	0.16	0.20	0.20	0.05	0.05	
8	15	495	0.76	6.23	0.07	0.28	0.20	0.24	0.06	0.06	
8	30	510	0.74	6.29	0.06	0.24	0.20	0.24	0.06	0.06	
8	45	525	0.73	6.34	0.05	0.20	0.20	0.24	0.06	0.06	
9	0	540	0.71	6.39	0.05	0.20	0.20	0.24	0.06	0.06	
9	15	555	0.70	6.43	0.04	0.16	0.20	0.28	0.07	0.07	
9	30	570	0.68	6.46	0.03	0.12	0.16	0.28	0.07	0.07	
9	45	585	0.67	6.48	0.02	0.08	0.16	0.32	0.08	0.08	
10	0	600	0.65	6.50	0.02	0.08	0.16	0.32	0.08	0.08	
10	15	615	0.64	6.56	0.06	0.24	0.16	0.40	0.10	0.10	
10	30	630	0.63	6.62	0.05	0.20	0.16	0.40	0.10	0.10	
10	45	645	0.62	6.67	0.05	0.20	0.16	0.48	0.12	0.12	
11	0	660	0.61	6.71	0.05	0.20	0.16	0.52	0.13	0.13	
11	15	675	0.60	6.75	0.04	0.16	0.16	0.68	0.17	0.17	
11	30	690	0.59	6.79	0.03	0.12	0.16	1.48	0.37	0.37	
11	45	705	0.58	6.82	0.03	0.12	0.16	3.64	0.91	0.91	
12	0	720	0.57	6.84	0.02	0.08	0.16	7.36	1.84	1.84	
12	15	735	0.56	6.86	0.02	0.08	0.16	2.28	0.57	0.57	
12	30	750	0.55	6.88	0.01	0.04	0.12	0.96	0.24	0.24	
12	45	765	0.54	6.89	0.01	0.04	0.12	0.56	0.14	0.14	
13	0	780	0.53	6.89	0.00	0.00	0.12	0.48	0.12	0.12	

13	15	795	0.52	6.92	0.03	0.12	0.12	0.44	0.11	0.11
13	30	810	0.52	6.95	0.03	0.12	0.12	0.40	0.10	0.10
13	45	825	0.51	6.98	0.03	0.12	0.12	0.40	0.10	0.10
14	0	840	0.50	7.00	0.02	0.08	0.12	0.32	0.08	0.08
14	15	855	0.49	7.02	0.02	0.08	0.12	0.32	0.08	0.08
14	30	870	0.49	7.03	0.01	0.04	0.12	0.28	0.07	0.07
14	45	885	0.48	7.04	0.01	0.04	0.12	0.28	0.07	0.07
15	0	900	0.47	7.05	0.01	0.04	0.12	0.24	0.06	0.06
15	15	915	0.47	7.09	0.04	0.16	0.12	0.24	0.06	0.06
15	30	930	0.46	7.13	0.04	0.16	0.12	0.24	0.06	0.06
15	45	945	0.46	7.17	0.04	0.16	0.12	0.24	0.06	0.06
16	0	960	0.45	7.20	0.03	0.12	0.08	0.20	0.05	0.05
16	15	975	0.45	7.23	0.03	0.12	0.08	0.20	0.05	0.05
16	30	990	0.44	7.26	0.03	0.12	0.08	0.20	0.05	0.05
16	45	1005	0.44	7.29	0.03	0.12	0.08	0.16	0.04	0.04
17	0	1020	0.43	7.31	0.02	0.08	0.08	0.16	0.04	0.04
17	15	1035	0.43	7.33	0.02	0.08	0.08	0.16	0.04	0.04
17	30	1050	0.42	7.35	0.02	0.08	0.08	0.16	0.04	0.04
17	45	1065	0.42	7.37	0.02	0.08	0.08	0.16	0.04	0.04
18	0	1080	0.41	7.38	0.01	0.04	0.08	0.16	0.04	0.04
18	15	1095	0.41	7.39	0.01	0.04	0.08	0.12	0.03	0.03
18	30	1110	0.40	7.40	0.01	0.04	0.08	0.12	0.03	0.03
18	45	1125	0.40	7.41	0.01	0.04	0.08	0.12	0.03	0.03
19	0	1140	0.39	7.41	0.00	0.00	0.08	0.12	0.03	0.03
19	15	1155	0.39	7.41	0.00	0.00	0.08	0.12	0.03	0.03
19	30	1170	0.38	7.41	0.00	0.00	0.04	0.12	0.03	0.03
19	45	1185	0.38	7.41	0.00	0.00	0.04	0.12	0.03	0.03
20	0	1200	0.37	7.40	-0.01	0.00	0.04	0.08	0.02	0.02
20	15	1215	0.37	7.44	0.04	0.16	0.04	0.08	0.02	0.02
20	30	1230	0.37	7.48	0.04	0.16	0.04	0.08	0.02	0.02
20	45	1245	0.36	7.52	0.04	0.16	0.04	0.08	0.02	0.02
21	0	1260	0.36	7.56	0.04	0.16	0.04	0.08	0.02	0.02
21	15	1275	0.36	7.54	-0.02	0.00	0.04	0.08	0.02	0.02
21	30	1290	0.35	7.53	-0.02	0.00	0.04	0.08	0.02	0.02
21	45	1305	0.35	7.50	-0.02	0.00	0.00	0.04	0.01	0.00
22	0	1320	0.34	7.48	-0.02	0.00	0.00	0.04	0.01	0.00
22	15	1335	0.34	7.51	0.03	0.12	0.00	0.04	0.01	0.00
22	30	1350	0.34	7.54	0.03	0.12	0.00	0.04	0.01	0.00
22	45	1365	0.33	7.56	0.03	0.12	0.00	0.00	0.00	0.00
23	0	1380	0.33	7.59	0.03	0.12	0.00	0.00	0.00	0.00
23	15	1395	0.33	7.61	0.02	0.08	0.00	0.00	0.00	0.00
23	30	1410	0.33	7.64	0.02	0.08	0.00	0.00	0.00	0.00
23	45	1425	0.32	7.66	0.02	0.08	0.00	0.00	0.00	0.00
24	0	1440	0.32	7.68	0.02	0.08	0.00	0.00	0.00	0.00
								Total rain, inches:	7.77	7.68
								KDOT Rainfall Intensity Table:		7.68

COMPOSITE METHOD DESIGN STORMS

RETURN PERIOD = 500 YEARS

RAIN INTERVAL = 15 MINUTES

STORM DURATION			Average Intensity	Rainfall Amount	Rainfall Increments	Rainfall Increments	Descending Intensities	Computed Rearranged Intensities	Manually Rearranged Rainfall	Manually Rearranged Rainfall
Hour	Minute	Cum. Min.	in/hr	inches	inches	in/hr	in/hr	in/hr	inches	inches
0	0	0								0
0	15	15	9.20	2.300	2.30	9.20	9.20	0.00	0.00	0.00
0	30	30	7.30	3.650	1.35	5.40	5.40	0.00	0.00	0.00
0	45	45	5.96	4.470	0.82	3.28	3.28	0.00	0.00	0.00
1	0	60	5.00	5.000	0.53	2.12	2.12	0.00	0.00	0.00
1	15	75	4.42	5.525	0.53	2.12	2.12	0.00	0.00	0.00
1	30	90	3.56	5.340	-0.19	0.00	0.92	0.00	0.00	0.00
1	45	105	3.18	5.565	0.23	0.92	0.88	0.04	0.01	0.00
2	0	120	2.80	5.600	0.03	0.12	0.84	0.04	0.01	0.00
2	15	135	2.56	5.760	0.16	0.64	0.80	0.04	0.01	0.00
2	30	150	2.39	5.975	0.22	0.88	0.64	0.08	0.02	0.00
2	45	165	2.25	6.188	0.21	0.84	0.52	0.08	0.02	0.00
3	0	180	2.13	6.390	0.20	0.80	0.52	0.08	0.02	0.00
3	15	195	2.01	6.518	0.13	0.52	0.48	0.08	0.02	0.00
3	30	210	1.89	6.631	0.11	0.44	0.48	0.08	0.02	0.01
3	45	225	1.78	6.689	0.06	0.24	0.48	0.08	0.02	0.01
4	0	240	1.70	6.803	0.11	0.44	0.44	0.12	0.03	0.02
4	15	255	1.62	6.875	0.07	0.28	0.44	0.12	0.03	0.02
4	30	270	1.55	6.968	0.09	0.36	0.44	0.12	0.03	0.02
4	45	285	1.48	7.026	0.06	0.24	0.40	0.12	0.03	0.02
5	0	300	1.42	7.119	0.09	0.36	0.40	0.12	0.03	0.02
5	15	315	1.37	7.184	0.07	0.28	0.40	0.12	0.03	0.02
5	30	330	1.31	7.222	0.04	0.16	0.36	0.12	0.03	0.02
5	45	345	1.27	7.311	0.09	0.36	0.36	0.16	0.04	0.04
6	0	360	1.23	7.380	0.07	0.28	0.36	0.16	0.04	0.04
6	15	375	1.20	7.512	0.13	0.52	0.36	0.16	0.04	0.04
6	30	390	1.17	7.629	0.12	0.48	0.36	0.16	0.04	0.04
6	45	405	1.15	7.733	0.10	0.40	0.36	0.16	0.04	0.04
7	0	420	1.12	7.823	0.09	0.36	0.32	0.20	0.05	0.05
7	15	435	1.10	7.939	0.12	0.48	0.28	0.20	0.05	0.05
7	30	450	1.07	8.044	0.10	0.40	0.28	0.20	0.05	0.05
7	45	465	1.05	8.138	0.09	0.36	0.28	0.24	0.06	0.06
8	0	480	1.03	8.220	0.08	0.32	0.24	0.24	0.06	0.06
8	15	495	1.01	8.338	0.12	0.48	0.24	0.28	0.07	0.07
8	30	510	0.99	8.447	0.11	0.44	0.24	0.32	0.08	0.08
8	45	525	0.98	8.548	0.10	0.40	0.24	0.36	0.09	0.09
9	0	540	0.96	8.640	0.09	0.36	0.20	0.36	0.09	0.09
9	15	555	0.94	8.672	0.03	0.12	0.20	0.36	0.09	0.09
9	30	570	0.92	8.693	0.02	0.08	0.20	0.40	0.10	0.10
9	45	585	0.89	8.702	0.01	0.04	0.20	0.44	0.11	0.11
10	0	600	0.87	8.700	0.00	0.00	0.20	0.44	0.11	0.11
10	15	615	0.86	8.764	0.06	0.24	0.20	0.48	0.12	0.12
10	30	630	0.84	8.820	0.06	0.24	0.16	0.52	0.13	0.13
10	45	645	0.83	8.869	0.05	0.20	0.16	0.64	0.16	0.16
11	0	660	0.81	8.910	0.04	0.16	0.16	0.84	0.21	0.21
11	15	675	0.80	8.944	0.03	0.12	0.16	0.92	0.23	0.23
11	30	690	0.78	8.970	0.03	0.12	0.16	2.12	0.53	0.53
11	45	705	0.77	8.989	0.02	0.08	0.16	5.40	1.35	1.35
12	0	720	0.75	9.000	0.01	0.04	0.16	9.20	2.30	2.30
12	15	735	0.74	9.027	0.03	0.12	0.16	3.28	0.82	0.82
12	30	750	0.72	9.047	0.02	0.08	0.16	2.12	0.53	0.53
12	45	765	0.71	9.060	0.01	0.04	0.12	0.88	0.22	0.22
13	0	780	0.70	9.068	0.01	0.04	0.12	0.80	0.20	0.20

13	15	795	0.69	9.111	0.04	0.16	0.12	0.52	0.13	0.13
13	30	810	0.68	9.150	0.04	0.16	0.12	0.48	0.12	0.12
13	45	825	0.67	9.185	0.03	0.12	0.12	0.48	0.12	0.12
14	0	840	0.66	9.214	0.03	0.12	0.12	0.44	0.11	0.11
14	15	855	0.65	9.238	0.02	0.08	0.12	0.40	0.10	0.10
14	30	870	0.64	9.257	0.02	0.08	0.12	0.40	0.10	0.10
14	45	885	0.63	9.272	0.01	0.04	0.12	0.36	0.09	0.09
15	0	900	0.62	9.281	0.01	0.04	0.12	0.36	0.09	0.09
15	15	915	0.61	9.336	0.05	0.20	0.12	0.36	0.09	0.09
15	30	930	0.61	9.387	0.05	0.20	0.12	0.28	0.07	0.07
15	45	945	0.60	9.435	0.05	0.20	0.12	0.28	0.07	0.07
16	0	960	0.59	9.480	0.04	0.16	0.12	0.24	0.06	0.06
16	15	975	0.59	9.521	0.04	0.16	0.08	0.24	0.06	0.06
16	30	990	0.58	9.560	0.04	0.16	0.08	0.20	0.05	0.05
16	45	1005	0.57	9.595	0.03	0.12	0.08	0.20	0.05	0.05
17	0	1020	0.57	9.626	0.03	0.12	0.08	0.20	0.05	0.05
17	15	1035	0.56	9.655	0.03	0.12	0.08	0.16	0.04	0.04
17	30	1050	0.55	9.680	0.03	0.12	0.08	0.16	0.04	0.04
17	45	1065	0.55	9.701	0.02	0.08	0.08	0.16	0.04	0.04
18	0	1080	0.54	9.720	0.02	0.08	0.08	0.16	0.04	0.04
18	15	1095	0.53	9.723	0.00	0.00	0.08	0.12	0.03	0.02
18	30	1110	0.53	9.723	0.00	0.00	0.08	0.12	0.03	0.02
18	45	1125	0.52	9.719	0.00	0.00	0.08	0.12	0.03	0.02
19	0	1140	0.51	9.711	-0.01	0.00	0.08	0.12	0.03	0.02
19	15	1155	0.50	9.700	-0.01	0.00	0.04	0.12	0.03	0.02
19	30	1170	0.50	9.685	-0.01	0.00	0.04	0.12	0.03	0.02
19	45	1185	0.49	9.667	-0.02	0.00	0.04	0.12	0.03	0.02
20	0	1200	0.48	9.644	-0.02	0.00	0.04	0.08	0.02	0.01
20	15	1215	0.48	9.692	0.05	0.20	0.04	0.08	0.02	0.00
20	30	1230	0.48	9.738	0.05	0.20	0.04	0.08	0.02	0.00
20	45	1245	0.47	9.781	0.04	0.16	0.00	0.08	0.02	0.00
21	0	1260	0.47	9.823	0.04	0.16	0.00	0.08	0.02	0.00
21	15	1275	0.46	9.787	-0.04	0.00	0.00	0.08	0.02	0.00
21	30	1290	0.45	9.747	-0.04	0.00	0.00	0.04	0.01	0.00
21	45	1305	0.45	9.703	-0.04	0.00	0.00	0.04	0.01	0.00
22	0	1320	0.44	9.656	-0.05	0.00	0.00	0.04	0.01	0.00
22	15	1335	0.44	9.685	0.03	0.12	0.00	0.00	0.00	0.00
22	30	1350	0.43	9.713	0.03	0.12	0.00	0.00	0.00	0.00
22	45	1365	0.43	9.738	0.03	0.12	0.00	0.00	0.00	0.00
23	0	1380	0.42	9.762	0.02	0.08	0.00	0.00	0.00	0.00
23	15	1395	0.42	9.784	0.02	0.08	0.00	0.00	0.00	0.00
23	30	1410	0.42	9.805	0.02	0.08	0.00	0.00	0.00	0.00
23	45	1425	0.41	9.823	0.02	0.08	0.00	0.00	0.00	0.00
24	0	1440	0.41	9.840	0.02	0.08	0.00	0.00	0.00	0.00
								Total rain, inches:	10.25	9.84
								KDOT Rainfall Intensity Table:		9.84

**Threemile Creek
Identification of Drainage Nodes and Subcatchments**

	Drainage Node ID	Subcatchment ID				
1	"85452"	198				
2	"85456"	305				
3	"85479"	327				
4	"85482"	390				
5	"85484"	381				
6	"85487"	358				
7	"85488"	382				
8	"85493"	439				
9	"85494"	410				
10	"85498"	437				
11	"85689"	598				
12	"85893"	37				
13	"85897"	17				
14	"85898"	14				
15	"85899"	63				
16	"85901"	38				
17	"85904"	18				
18	"85909"	41				
19	"85914"	141				
20	"85920"	249	251	252		
21	"85923"	292				
22	"85927"	295				
23	"85939"	197	223			
24	"85942"	191				
25	"85945"	190				
26	"85948"	207	211	250	254	278
27	"85951"	247				
28	"85955"	253				
29	"85959"	286				
30	"85975"	546				
31	"85980"	505				
32	"85982"	489				
33	"85986"	456				
34	"85987"	503				
35	"85995"	445	457			
36	"86001"	487				
37	"86002"	543				
38	"86009"	458	488			
39	"86011"	514				
40	"86015"	636				
41	"86017"	626				
42	"86021"	572				

**Threemile Creek
Identification of Drainage Nodes and Subcatchments**

	Drainage Node ID	Subcatchment ID		
43	"86029"	584		
44	"86030"	606		
45	"86033"	559		
46	"86034"	560		
47	"86043"	566		
48	"86049"	590		
49	"86055"	591		
50	"86064"	624		
51	"86156"	736		
52	"86195"	663		
53	"86197"	642		
54	"86199"	666		
55	"86201"	674		
56	"86205"	645		
57	"86206"	648		
58	"86210"	640		
59	"86237"	313		
60	"86238"	315		
61	"86240"	328		
62	"86241"	364		
63	"86244"	309		
64	"86259"	406		
65	"86264"	434		
66	"86272"	432		
67	"86273"	453		
68	"86277"	402		
69	"86285"	324		
70	"86288"	385		
71	"86291"	401		
72	"86303"	293		
73	"86305"	294		
74	"86317"	367		
75	"86318"	366	368	
76	"86319"	408		
77	"86323"	583		
78	"86325"	625		
79	"86330"	607		
80	"86339"	491	513	
81	"86351"	484		
82	"86354"	558		
83	"86357"	524		
84	"86359"	581		

**Threemile Creek
Identification of Drainage Nodes and Subcatchments**

	Drainage Node ID	Subcatchment ID			
85	"86364"	588			
86	"86366"	610			
87	"86371"	623			
88	"86373"	619			
89	"86376"	611			
90	"86379"	620			
91	"86402"	346			
92	"86412"	448	455	446	451
93	"86426"	289	326		
94	"86428"	316	334		
95	"86429"	440			
96	"86431"	450			
97	"86436"	475			
98	"86437"	485			
99	"86444"	483	530		
100	"86451"	482			
101	"86462"	321	299	314	
102	"86466"	317			
103	"86471"	284			
104	"86475"	288	290		
105	"86498"	153	193	216	
106	"86510"	154			
107	"86519"	75			
108	"86524"	99			
109	"86526"	137			
110	"86543"	12	62		
111	"86556"	35			
112	"86559"	10			
113	"86562"	11			
114	"86564"	26			
115	"86568"	665			
116	"86591"	721			
117	"86623"	570			
118	"86624"	554			
119	"86628"	561	618		
120	"86634"	568			
121	"86641"	569			
122	"86645"	593			
123	"86648"	595			
124	"86652"	597			
125	"86655"	603			
126	"86658"	609			

**Threemile Creek
Identification of Drainage Nodes and Subcatchments**

	Drainage Node ID	Subcatchment ID			
127	"86693"	325			
128	"86695"	337			
129	"86697"	343			
130	"86699"	423			
131	"86705"	428			
132	"86707"	443	452	467	
133	"86717"	332			
134	"86723"	274	279	283	
135	"86725"	271			
136	"86731"	306			
137	"86732"	149	231		
138	"86743"	296			
139	"86745"	894			
140	"86757"	126	127		
141	"86759"	155			
142	"86760"	183			
143	"86766"	244			
144	"86770"	161	163	172	214
145	"86776"	219			
146	"86779"	215			
147	"86781"	218			
148	"86782"	236			
149	"86791"	67			
150	"86794"	36			
151	"86795"	56			
152	"86796"	34			
153	"86803"	33			
154	"86806"	98			
155	"86811"	96			
156	"86817"	95			
157	"86819"	93			
158	"86827"	159			
159	"86831"	30			
160	"86834"	66			
161	"86838"	44			
162	"86840"	92			
163	"86842"	40			
164	"86844"	31			
165	"86902"	518			
166	"86906"	574			
167	"86910"	577			
168	"86931"	468			

**Threemile Creek
Identification of Drainage Nodes and Subcatchments**

	Drainage Node ID	Subcatchment ID	
169	"86965"	435	
170	"86967"	416	
171	"86968"	425	
172	"86973"	392	
173	"86974"	352	
174	"86981"	393	
175	"86987"	349	
176	"86996"	320	
177	"87002"	160	167
178	"87013"	194	
179	"87016"	174	
180	"87019"	101	
181	"87021"	22	148
182	"87032"	46	
183	"87035"	20	
184	"87038"	287	
185	"92002"	4	27
186	"92003"	47	
187	"92006"	16	
188	"92012"	91	111
189	"92014"	115	
190	"92018"	89	
191	"92023"	116	
192	"92038"	25	
193	"92044"	241	
194	"92052"	243	
195	"92065"	335	
196	"92066"	353	
197	"92069"	354	
198	"92083"	318	
199	"92088"	405	
200	"92094"	359	387
201	"92095"	433	
202	"92098"	403	
203	"92101"	438	
204	"92128"	481	
205	"92131"	470	
206	"92142"	472	
207	"92145"	473	
208	"92150"	478	
209	"92298"	51	
210	"92300"	225	

**Threemile Creek
Identification of Drainage Nodes and Subcatchments**

	Drainage Node ID	Subcatchment ID				
211	"92301"	235				
212	"92306"	213	262			
213	"92308"	94	100			
214	"92345"	436				
215	"92346"	422				
216	"92363"	291				
217	"92412"	54	55	79		
218	"92413"	71				
219	"92414"	50				
220	"92591"	654				
221	"92594"	644	682	703		
222	"92595"	664				
223	"92597"	527				
224	"92599"	556				
225	"92601"	476				
226	"92603"	474				
227	"92604"	479				
228	"92605"	360	421	429		
229	"92606"	424				
230	"92607"	447				
231	"92612"	355				
232	"92614"	239				
233	"92615"	312				
234	"92617"	528				
235	"92618"	477				
236	"92619"	444				
237	"92628"	3				
238	"92629"	83	85	97	103	132
239	"92633"	15				
240	"92640"	7				
241	"92642"	49	72			
242	"92649"	256				
243	"92650"	233	300			
244	"92652"	156				
245	"92653"	175				
246	"92656"	234				
247	"92658"	109	164	176		
248	"92662"	74				
249	"92665"	86				
250	"92666"	82				
251	"92667"	70				
252	"92669"	52				

**Threemile Creek
Identification of Drainage Nodes and Subcatchments**

	Drainage Node ID	Subcatchment ID		
253	"92671"	48		
254	"92672"	60		
255	"92673"	53		
256	"92674"	32		
257	"92675"	39		
258	"92683"	351		
259	"92684"	369	374	383
260	"92689"	486		
261	"92692"	375	400	
262	"92696"	541		
263	"92698"	542		
264	"92700"	522		
265	"92703"	562		
266	"92704"	601		
267	"92712"	616		
268	"92719"	523		
269	"92720"	494		
270	"92723"	362		
271	"92726"	442		
272	"92727"	454		
273	"92732"	322		
274	"92734"	345		
275	"92736"	431		
276	"92740"	563		
277	"92752"	678		
278	"92754"	698		
279	"92755"	700		
280	"92757"	720		
281	"92758"	751		
282	"92760"	778		
283	"92762"	788		
284	"92788"	69		
285	"92805"	112		

Fivemile Creek					
Identification of Drainage Nodes and Subcatchments					
	Drainage Node ID	Subcatchment ID			
1	"84550"	646			
2	"84582"	748			
3	"84583"	714	749		
4	"84588"	649			
5	"84591"	612			
6	"84593"	578			
7	"84595"	539			
8	"84597"	538			
9	"84598"	537			
10	"84606"	564	506		
11	"84609"	471			
12	"84618"	499	500		
13	"84621"	585			
14	"84622"	587			
15	"84624"	536			
16	"84633"	412			
17	"84637"	409			
18	"84638"	386			
19	"84640"	384			
20	"84641"	380			
21	"84643"	285			
22	"84647"	388			
23	"84662"	860			
24	"84672"	852			
25	"84675"	859			
26	"84680"	856			
27	"84683"	876			
28	"84685"	877			
29	"84692"	818			
30	"84695"	812	820		
31	"84702"	801			
32	"84703"	802			
33	"84707"	815			
34	"84712"	786			
35	"84727"	784	787	795	797
36	"84736"	746	762		
37	"84739"	745			
38	"84741"	747			
39	"84747"	672			
40	"84749"	671			
41	"84751"	680			
42	"84757"	502	519		

Fivemile Creek
Identification of Drainage Nodes and Subcatchments

	Drainage Node ID	Subcatchment ID		
43	"84758"	521		
44	"84759"	525		
45	"84769"	549		
46	"84771"	608		
47	"84772"	632		
48	"84778"	1/8 of 277		
49	"84785"	21		
50	"84791"	879	880	882
51	"84793"	883		
52	"84795"	884		
53	"84798"	885		
54	"84800"	888		
55	"84808"	853		
56	"84813"	846		
57	"84820"	837		
58	"84823"	862		
59	"84824"	842		
60	"84839"	848		
61	"84840"	817		
62	"84869"	781		
63	"84870"	811	816	
64	"84871"	813		
65	"84872"	767		
66	"84885"	835		
67	"84892"	875		
68	"84895"	861		
69	"84899"	872		
70	"84903"	855		
71	"84905"	851		
72	"84909"	833		
73	"84925"	838		
74	"84935"	669		
75	"84944"	571		
76	"84946"	635		
77	"84948"	631		
78	"84956"	613		
79	"84959"	604		
80	"84963"	567	580	
81	"84972"	553		
82	"84973"	510	516	
83	"84978"	469		
84	"84982"	497		

Fivemile Creek					
Identification of Drainage Nodes and Subcatchments					
	Drainage Node ID	Subcatchment ID			
85	"84983"	465			
86	"84987"	498			
87	"84989"	526			
88	"85009"	418			
89	"85011"	417			
90	"85012"	1/2 of 419			
91	"85015"	414			
92	"85025"	379	389		
93	"85028"	378			
94	"85035"	304	319	338	339
95	"85042"	308			
96	"85043"	344			
97	"85045"	341			
98	"85047"	348			
99	"85055"	267			
100	"85056"	255			
101	"85061"	210	227	242	
102	"85069"	203			
103	"85079"	212			
104	"85086"	272	281		
105	"85104"	77			
106	"85107"	45			
107	"85110"	68			
108	"85126"	634			
109	"85149"	461			
110	"85151"	511			
111	"85154"	495	496		
112	"85157"	490			
113	"85159"	466			
114	"85160"	575			
115	"85162"	897			
116	"85164"	555			
117	"85172"	550	573		
118	"85174"	592			
119	"85183"	407	463		
120	"85184"	413			
121	"85188"	493			
122	"85189"	411			
123	"85193"	373			
124	"85197"	331			
125	"85200"	329			
126	"85202"	310	333	365	

Fivemile Creek
Identification of Drainage Nodes and Subcatchments

	Drainage Node ID	Subcatchment ID		
127	"85206"	330		
128	"85219"	372	377	
129	"85230"	404		
130	"85238"	370		
131	"85247"	462		
132	"85251"	350		
133	"85257"	427		
134	"85261"	460		
135	"85267"	282		
136	"85275"	273		
137	"85276"	275		
138	"85281"	264		
139	"85282"	261		
140	"85284"	263		
141	"85286"	259		
142	"85290"	1/4 of 232		
143	"85292"	1/2 of 237		
144	"85295"	224		
145	"85300"	220		
146	"85302"	188		
147	"85303"	150		
148	"85305"	228		
149	"85307"	246		
150	"85310"	258		
151	"85311"	265		
152	"85312"	260		
153	"85317"	893		
154	"85319"	301		
155	"85323"	298		
156	"85324"	222		
157	"85325"	226		
158	"85328"	245		
159	"85331"	257		
160	"85336"	323		
161	"85342"	303		
162	"85346"	185		
163	"85347"	208		
164	"85362"	171		
165	"85368"	178		
166	"85372"	170		
167	"85375"	76		
168	"85376"	29	43	

Fivemile Creek
Identification of Drainage Nodes and Subcatchments

	Drainage Node ID	Subcatchment ID		
169	"85381"	124	143	
170	"85386"	108	113	119
171	"85388"	123	142	
172	"85389"	139		
173	"85391"	151		
174	"85394"	122		
175	"85397"	140		
176	"85405"	110		
177	"85406"	133		
178	"85407"	88		
179	"85412"	147		
180	"85416"	138		
181	"85417"	157		
182	"85427"	162		
183	"85437"	199		
184	"85440"	181		
185	"85442"	182		
186	"85443"	202		
187	"85463"	395		
188	"85466"	426	464	
189	"85470"	430	480	
190	"85475"	420		
191	"85510"	641		
192	"85511"	658		
193	"85514"	628		
194	"85515"	629		
195	"85541"	710		
196	"85543"	713		
197	"85550"	728		
198	"85554"	695		
199	"85564"	755		
200	"85565"	766		
201	"85575"	792	798	
202	"85586"	775		
203	"85590"	768		
204	"85598"	769		
205	"85607"	770		
206	"85610"	804		
207	"85642"	614		
208	"85645"	627		
209	"85659"	548		
210	"85663"	547		

**Fivemile Creek
Identification of Drainage Nodes and Subcatchments**

	Drainage Node ID		Subcatchment ID		
211	"85668"	507			
212	"85669"	508			
213	"85672"	504			
214	"85695"	586			
215	"85701"	783			
216	"85724"	789			
217	"85734"	763			
218	"85737"	799			
219	"85739"	774	806		
220	"85743"	686			
221	"85746"	679			
222	"85760"	730			
223	"85768"	779			
224	"85774"	794			
225	"85782"	777			
226	"85792"	660	661		
227	"85798"	670	691		
228	"85802"	712			
229	"85805"	707			
230	"85820"	865			
231	"85844"	829			
232	"85848"	827			
233	"85853"	822			
234	"85870"	854	863	864	866
235	"85873"	847	849		
236	"85876"	841			
237	"85878"	834			
238	"85884"	805			
239	"85890"	807			
240	"86214"	6			
241	"86220"	42			
242	"86224"	24	28		
243	"86226"	23			
244	"92020"	73			
245	"92021"	209			
246	"92025"	180			
247	"92035"	3/4 of 232			
248	"92048"	179			
249	"92061"	7/8 of 277			
250	"92079"	376			
251	"92080"	356			
252	"92112"	1/2 of 419			

**Fivemile Creek
Identification of Drainage Nodes and Subcatchments**

	Drainage Node ID		Subcatchment ID	
253	"92114"	398		
254	"92135"	441		
255	"92136"	371		
256	"92152"	512	515	517
257	"92156"	509		
258	"92169"	531		
259	"92173"	557		
260	"92178"	599		
261	"92179"	589		
262	"92189"	600		
263	"92198"	677		
264	"92219"	702		
265	"92248"	828		
266	"92250"	809		
267	"92253"	832		
268	"92259"	844		
269	"92260"	858		
270	"92264"	868		
271	"92265"	873		
272	"92267"	869	870	
273	"92269"	836		
274	"92278"	889		
275	"92281"	891		
276	"92288"	637		
277	"92289"	633	688	697
278	"92293"	780		
279	"92317"	850		
280	"92318"	803		
281	"92320"	840		
282	"92322"	843		
283	"92323"	732		
284	"92324"	731		
285	"92326"	727		
286	"92329"	662		
287	"92332"	643		
288	"92334"	551	565	576
289	"92338"	596		
290	"92339"	615		
291	"92340"	545		
292	"92344"	449		
293	"92347"	361	363	
294	"92349"	297		

**Fivemile Creek
Identification of Drainage Nodes and Subcatchments**

	Drainage Node ID	Subcatchment ID		
295	"92350"	302		
296	"92351"	269	270	
297	"92353"	229		
298	"92356"	1/2 of 237		
299	"92357"	221		
300	"92358"	205		
301	"92361"	158		
302	"92371"	102		
303	"92373"	64		
304	"92374"	78		
305	"92375"	105		
306	"92376"	90		
307	"92377"	117		
308	"92378"	104		
309	"92379"	129		
310	"92380"	106		
311	"92382"	114		
312	"92384"	130		
313	"92385"	131		
314	"92388"	107		
315	"92389"	121	144	
316	"92391"	152		
317	"92401"	87		
318	"92402"	58	59	84
319	"92405"	65		
320	"92406"	61		
321	"92408"	57		
322	"92416"	8		
323	"92424"	13		
324	"92425"	886		
325	"92426"	887		
326	"92427"	890		
327	"92428"	1		
328	"92429"	81		
329	"92430"	19		
330	"92432"	9		
331	"92434"	146		
332	"92435"	120		
333	"92436"	145		
334	"92438"	135		
335	"92441"	125		
336	"92443"	128		

**Fivemile Creek
Identification of Drainage Nodes and Subcatchments**

	Drainage Node ID	Subcatchment ID				
337	"92445"	189				
338	"92446"	169	204			
339	"92447"	206				
340	"92449"	230				
341	"92455"	276				
342	"92456"	238	307			
343	"92458"	266				
344	"92459"	280	311	336	340	342
345	"92463"	217				
346	"92465"	173	186	196		
347	"92467"	168				
348	"92469"	165				
349	"92470"	136				
350	"92471"	166				
351	"92472"	184	187			
352	"92474"	118				
353	"92475"	399				
354	"92477"	347				
355	"92479"	394	459			
356	"92480"	492				
357	"92486"	268				
358	"92487"	415				
359	"92490"	396				
360	"92492"	397				
361	"92495"	896				
362	"92496"	520				
363	"92497"	655				
364	"92498"	638				
365	"92500"	605				
366	"92501"	602				
367	"92502"	552				
368	"92504"	622				
369	"92505"	582				
370	"92508"	673	726			
371	"92509"	647				
372	"92510"	711				
373	"92511"	681	717			
374	"92512"	733				
375	"92513"	734				
376	"92514"	744				
377	"92515"	759				
378	"92516"	796				

**Fivemile Creek
Identification of Drainage Nodes and Subcatchments**

	Drainage Node ID	Subcatchment ID		
379	"92518"	814		
380	"92521"	652	675	
381	"92525"	687		
382	"92527"	761		
383	"92530"	895		
384	"92531"	845		
385	"92537"	810		
386	"92539"	819		
387	"92541"	857		
388	"92543"	839		
389	"92554"	650		
390	"92555"	657		
391	"92556"	579		
392	"92557"	501		
393	"92558"	535		
394	"92559"	540		
395	"92560"	534		
396	"92561"	544		
397	"92564"	1/2 of 532		
398	"92566"	533		
399	"92567"	1/2 of 529		
400	"92568"	391		
401	"92570"	240		
402	"92780"	177		
403	"92801"	201		
404	"92802"	248		
405	"92803"	134		
406	"92804"	80		
407	"92823"	2		
408	"92855"	1/2 of 532		
409	"92859"	1/4 of 529		
410	"92860"	1/4 of 529		
411	"92870"	830		

Calculation of Approximate 1- and 2-Year Flood Elevations on the Missouri River at Outlets of 3-Mile and 5-Mile Creeks Leavenworth, Kansas										
Storm Return Period, yr	Log Storm Return	FEMA Discharge, cfs	Computed Discharge, from 1st Regression Output, cfs	Percent Difference	Discharge, cfs	FEMA Flood Elev, ft	Computed Elevation, from 2nd Regression Output, ft	Percent Difference	MO River Tailwater Elev, ft	Return Period, yr
1	0		101526		101526		763.7		763.7	1
2	0.30103		126994		126994		765.1		765.1	2
10	1	186000	186130	-0.07	186000	768.6	768.2	0.06	768.6	10
50	1.69897	246000	245266	0.30	246000	771	771.3	-0.04	771	50
100	2	270000	270734	-0.27	270000	772	772.6	-0.08	772	100
500	2.69897	330000	329870	0.04	330000	776.2	775.7	0.06	776.2	500
1st Regression Output:										
Constant			Discharge-Frequency		2nd Regression Output:				Stage-Discharge	
Std Err of Y Est			101526		Constant				758.4108	
R Squared			745.6214		Std Err of Y Est				0.649844	
No. of Observations			0.999896		R Squared				0.972024	
Degrees of Freedom			4		No. of Observations				4	
			2		Degrees of Freedom				2	
X Coefficient(s)		84604.1			X Coefficient(s)		0.000052			
Std Err of Coef.		611.1325			Std Err of Coef.		6.3E-06			

10-Year Existing Condition SWSM vs. Rational Formula

Drainage ID	Area, Acres	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	Flow Length		Time of Concentration		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM % Difference	Area Weighted Difference
						Overland (<=300 ft)	Pipe	Overland 5<Tl<15	Gutter						
85452	34.38	198	5.68	0.173	0.33	300	120	9.23	0.24	0.00	6.26	71.9	90.234	20.3	0.176
85456	19.71	305	17.48	0.194	0.40	300	240	8.52	0.45	0.00	6.48	51.7	72.24	28.4	0.141
85479	13.07	327	18	0.118	0.41	300	90	9.48	0.22	0.00	6.26	33.4	41.976	20.5	0.067
85482	5.22	390	17.96	0.033	0.41	300	210	14.50	0.96	0.00	5.19	11.0	13.961	20.9	0.027
85484	2.79	381	18	0.041	0.41	300	13.48	13.48	0.00	0.00	5.5	6.3	9.022	30.6	0.022
85487	3.82	358	19.77	0.073	0.42	300	120	10.95	0.37	0.00	5.86	9.4	16.281	42.4	0.041
85488	20.81	382	18	0.124	0.41	300	9.32	9.32	0.00	0.00	6.26	53.2	58.52	9.2	0.048
85493	1.44	439	18	0.04	0.41	300	13.59	13.59	0.00	0.00	5.5	3.2	5.106	36.7	0.013
85494	4.61	410	17.97	0.048	0.41	300	12.79	12.79	0.00	0.00	5.67	10.7	15.589	31.6	0.037
85498	6.65	437	18	0.063	0.41	300	11.68	11.68	0.50	0.23	5.67	15.4	24.172	36.4	0.061
85689	3.27	598	18	0.072	0.41	300	11.17	11.17	0.00	0.00	5.86	7.8	12.862	39.2	0.032
85697	6.84	17	17.98	0.07	0.41	240	10.09	10.09	0.28	0.00	6.05	5.0	8.165	38.3	0.020
85698	34.87	14	10.39	0.228	0.36	300	180	8.1	0.31	0.00	6.48	16.1	25.052	35.9	0.062
85699	3.5	63	9.09	0.07	0.35	300	300	11.63	0.80	0.00	5.67	59.6	95.869	37.8	0.332
85901	4.22	38	17.56	0.084	0.41	300	330	12.15	0.00	0.00	5.67	7.0	10.971	35.9	0.032
85904	9.92	18	17.57	0.071	0.41	300	300	8.55	0.95	0.00	6.26	10.0	14.888	32.7	0.035
85909	3.7	41	18.53	0.066	0.41	300	180	11.27	0.00	0.00	5.86	18.6	32.128	42.0	0.105
85914	8.9	141	18	0.143	0.41	300	10.48	10.48	0.51	0.00	6.05	8.8	16.324	46.2	0.043
85920	2.05	249	18	0.092	0.41	300	8.89	8.89	0.00	0.00	6.48	5.4	7.786	40.8	0.091
85920	10.55	251	17.9	0.047	0.41	300	420	10.31	1.15	0.00	5.86	25.2	35.617	29.3	0.078
85920	5.34	252	18	0.024	0.41	300	120	12.88	0.46	0.00	5.5	12.0	18.641	35.7	0.048
85923	5.25	292	18	0.024	0.41	300	16.11	16.11	0.00	0.00	5.19	11.1	18.142	38.7	0.051
85927	11.69	295	18	0.066	0.41	300	11.50	11.50	0.00	0.00	5.86	27.9	32.747	14.7	0.043
85939	7.43	197	7.74	0.07	0.35	300	480	12.28	1.51	0.00	5.5	14.2	22.716	37.7	0.071
85939	3.1	223	17.96	0.08	0.41	300	30	10.79	0.09	0.00	6.05	7.6	11.232	31.9	0.025
85942	3.61	191	18	0.109	0.41	300	180	9.73	0.45	0.00	6.05	8.9	13.69	34.9	0.032
85945	1.89	190	18	0.078	0.41	270	120	10.32	0.36	0.00	6.05	4.7	8.077	42.2	0.020
85948	30.95	207	13.27	0.16	0.38	300	570	8.91	0.00	0.00	6.48	76.1	118.767	35.9	0.280
85948	14.99	211	18	0.097	0.41	300	10.12	10.12	1.53	0.00	5.86	35.8	54.902	34.7	0.131
85948	3.1	250	18	0.063	0.41	300	11.68	11.68	0.00	0.00	5.86	7.4	11.273	34.3	0.027
85948	4.16	254	18	0.061	0.41	300	11.81	11.81	0.00	0.00	5.86	9.9	17.025	41.6	0.044
85948	1.94	278	18	0.07	0.41	300	11.28	11.28	0.00	0.00	5.86	4.6	8.072	42.5	0.021
85951	1.34	247	18	0.08	0.41	180	60	8.36	0.18	0.00	6.48	3.5	5.625	37.0	0.012
85955	3.92	253	18	0.069	0.41	300	11.33	11.33	0.00	0.00	5.86	9.4	13.824	32.2	0.032
85959	2.42	286	18.02	0.063	0.41	240	10.45	10.45	0.00	0.00	6.05	6.0	10.018	40.4	0.025
85975	6.02	546	19.39	0.061	0.42	300	11.67	11.67	0.00	0.00	5.86	14.7	19.739	25.6	0.039
85980	15.58	505	17.66	0.033	0.41	300	14.53	14.53	0.00	0.00	5.34	33.8	29.584	-14.2	-0.056
85982	6.05	489	22.91	0.031	0.44	300	14.17	14.17	0.00	0.00	5.34	14.1	20.948	32.5	0.050
85986	1.66	456	17.94	0.08	0.41	270	90	10.24	0.27	0.00	6.05	4.1	7.997	48.8	0.020
85987	4.77	503	16.96	0.073	0.40	300	11.22	11.22	0.00	0.00	5.86	11.2	17.977	37.5	0.045
85995	20.66	445	17.77	0.084	0.41	300	570	10.63	1.64	0.00	5.67	47.6	78.259	39.1	0.204
85995	2.22	457	18	0.123	0.41	300	9.35	9.35	0.00	0.00	6.26	5.7	8.845	35.9	0.020
86001	10.49	487	27.45	0.119	0.46	300	60	8.68	0.00	0.00	6.48	31.6	42.655	25.9	0.069
86002	3.35	543	22.38	0.093	0.43	300	9.87	9.87	0.16	0.00	6.05	8.8	13.408	34.4	0.029
86009	2.57	458	19.2	0.081	0.42	300	10.63	10.63	0.00	0.00	6.05	6.5	9.677	33.3	0.022
86011	24.95	514	18.63	0.135	0.41	300	9.24	9.24	0.23	0.00	6.26	11.9	16.596	35.9	0.041
86015	10.84	636	40.36	0.109	0.54	300	9.01	9.01	0.41	0.00	6.26	64.3	94.386	31.9	0.200
86017	8.44	626	30.35	0.09	0.48	300	390	7.84	0.98	0.00	6.48	38.1	48.389	21.3	0.058
86021	6.5	572	19.25	0.045	0.42	300	390	9.26	1.08	0.00	6.05	24.6	29.507	16.6	0.035
86029	5.22	584	19.3	0.06	0.42	270	450	12.93	0.71	0.00	5.5	12.9	20.473	27.4	0.045
86030	9.23	606	18	0.094	0.41	300	11.14	11.14	1.53	0.00	5.67	12.3	20.221	39.1	0.051
86033	2.31	559	18	0.064	0.41	270	10.22	10.22	0.00	0.00	6.05	22.8	35.165	35.2	0.082
86034	4.26	560	18	0.088	0.41	240	540	9.35	1.52	0.00	5.86	5.5	8.654	36.2	0.021
86043	7.79	566	18.09	0.097	0.41	300	120	10.11	0.32	0.00	6.05	10.5	17.188	38.8	0.042
86049	8.54	590	18	0.091	0.41	300	10.33	10.33	0.00	0.00	6.05	19.3	30.662	37.2	0.073
86055	6.28	591	18	0.043	0.41	300	13.27	13.27	0.00	0.00	5.5	14.1	31.504	33.1	0.071
													22.043	36.1	0.057

Drainage ID	Area, Acres	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	Flow Length		Time of Concentration		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Rational % Difference	Area Weighted Difference
						Overland (<=300 ft)	Pipe	Overland 5<T<15	Gutter						
86064	2.3	624	18	0.081	0.41	300	210	10.74	0.61	11.36	5.5	9.008	39.0	0.023	
86156	2.66	736	84.96	0.053	0.81	300	300	5.19	0.00	5.19	15.6	13.748	-13.7	-0.009	
86195	6.93	663	26.22	0.08	0.46	300	300	10.02	0.88	10.90	19.2	29.147	34.2	0.060	
86197	6.77	642	56.41	0.045	0.64	300	210	8.72	0.83	9.54	27.1	31.414	13.9	0.024	
86199	3.87	666	85	0.048	0.81	270	270	5.08	1.03	6.11	21.8	19.874	-9.8	-0.010	
86201	4.91	674	83.09	0.026	0.80	300	720	6.83	3.72	10.56	23.7	24.719	4.0	0.005	
86205	2.83	645	34.76	0.035	0.51	240	660	10.86	2.94	13.80	7.9	11.774	32.8	0.023	
86210	4.22	648	27.1	0.1	0.46	120	630	5.83	1.66	7.49	4.5	6.827	34.5	0.013	
86237	5.9	313	18	0.028	0.81	300	120	6.41	0.60	7.01	22.9	21.349	-7.4	-0.008	
86238	8.21	315	18	0.065	0.41	300	270	10.79	0.80	11.58	14.1	22.301	36.7	0.055	
86240	3.08	328	18	0.052	0.41	300	510	11.56	1.67	13.23	18.4	25.358	27.3	0.057	
86241	2.15	364	18	0.028	0.41	300	60	12.45	0.00	12.45	7.1	11.287	36.9	0.029	
86244	0.9	309	18	0.053	0.41	180	60	15.31	0.30	15.30	4.6	7.237	37.1	0.020	
86259	7.86	406	17.93	0.064	0.41	300	360	11.63	1.19	12.81	2.3	3.969	42.1	0.010	
86264	3.08	434	18.8	0.096	0.41	300	60	10.08	0.00	10.08	18.2	31.543	42.4	0.084	
86272	4.58	432	28.9	0.08	0.47	300	300	9.77	0.00	9.83	13.6	18.862	28.0	0.032	
86273	3.37	453	32.35	0.075	0.49	300	300	9.65	0.91	10.56	10.1	13.925	27.7	0.023	
86277	10.31	402	36.51	0.1	0.52	285	480	11.67	1.26	11.67	21.5	28.868	25.6	0.056	
86285	8.65	324	20.59	0.059	0.42	300	60	11.67	0.00	11.67	11.5	18.212	36.6	0.042	
86288	4.52	385	18	0.117	0.41	300	450	9.50	0.00	9.50	17.7	28.526	37.9	0.066	
86291	6.93	401	18.06	0.104	0.41	240	450	8.84	1.16	10.00	23.4	34.891	33.1	0.081	
86303	9.77	293	18	0.059	0.41	300	120	11.94	0.00	11.94	15.2	20.83	27.2	0.046	
86305	16.09	294	19.27	0.056	0.42	300	120	12.02	0.42	12.44	22.6	34.849	35.2	0.073	
86317	11.18	367	17.96	0.05	0.41	300	600	12.62	2.24	14.86	24.3	37.159	34.5	0.097	
86318	8.98	366	18	0.094	0.41	300	660	10.22	1.79	12.02	20.8	34.483	39.8	0.090	
86318	8.16	368	18	0.057	0.41	300	120	12.08	0.42	12.50	18.9	30.511	38.1	0.078	
86319	6.43	408	10	0.071	0.36	300	120	12.00	0.00	12.00	13.1	18.747	30.0	0.049	
86323	6.68	583	18.76	0.051	0.41	300	300	12.45	1.11	13.56	5.5	15.2	20.83	27.2	0.046
86325	8.24	625	35.49	0.036	0.51	300	540	11.94	2.37	14.31	22.6	34.849	35.2	0.073	
86330	16.34	607	30.85	0.064	0.49	300	360	10.33	1.19	11.51	5.86	46.4	69.167	32.8	0.135
86339	5.92	491	18	0.112	0.41	300	120	9.64	0.00	9.64	15.1	21.468	29.6	0.044	
86339	1.26	513	18	0.1	0.41	150	150	7.08	0.40	7.48	3.4	5.922	41.8	0.013	
86351	3.91	484	18	0.12	0.41	120	1140	5.96	2.74	8.70	10.3	18.27	43.4	0.043	
86354	1.58	558	81.65	0.08	0.79	N/A	840	0.00	2.48	7.48	8.4	8.111	-3.2	-0.001	
86357	11.79	524	37.29	0.144	0.52	300	330	7.38	0.72	8.11	40.0	53.059	24.6	0.073	
86359	1.31	581	49.51	0.222	0.60	210	90	4.67	0.00	5.10	6.48	8.111	-3.2	-0.001	
86364	4.04	588	85	0.012	0.81	300	240	8.51	1.83	10.33	5.7	6.479	12.4	0.004	
86366	3.93	610	85	0.017	0.81	270	360	8.51	1.83	9.49	19.8	19.429	-1.9	-0.002	
86371	7.09	623	85	0.043	0.81	300	600	7.19	2.30	9.94	19.9	20.046	0.6	0.001	
86373	4.41	619	85	0.018	0.81	300	600	5.56	2.41	7.97	38.5	36.262	-6.3	-0.011	
86376	12.82	611	20.98	0.033	0.43	300	90	14.12	0.41	14.53	24.0	21.933	-9.3	-0.010	
86379	6	620	22.02	0.081	0.43	300	360	10.37	1.05	11.42	29.2	46.672	37.5	0.121	
86402	6.03	346	18	0.052	0.41	300	300	9.94	0.00	9.94	15.2	24.179	37.2	0.056	
86412	3.82	448	20.01	0.097	0.42	300	150	12.45	0.00	12.45	13.9	23.197	39.9	0.061	
86412	1.25	455	18	0.043	0.41	240	180	11.87	0.72	12.59	10.0	15.246	34.1	0.033	
86412	2.62	446	18	0.113	0.41	300	150	9.61	0.37	9.99	2.9	4.679	38.2	0.012	
86412	3.37	451	18	0.048	0.41	270	90	12.13	0.34	12.48	6.7	10.418	35.8	0.024	
86426	9.79	289	21.24	0.126	0.43	300	90	9.01	0.00	9.01	26.2	12.505	37.7	0.032	
86426	1.9	326	46.56	0.093	0.58	300	150	7.72	0.00	7.72	7.4	8.831	16.4	0.008	
86428	6.43	316	27.13	0.12	0.46	300	150	8.68	0.36	9.04	18.6	18.6	16.4	0.008	
86428	1.57	334	18	0.073	0.41	300	180	11.12	0.56	11.68	3.8	6.393	31.8	0.051	
86429	3.24	440	27.21	0.05	0.46	300	60	11.61	0.00	11.61	8.8	13.145	41.3	0.016	
86431	4.36	450	18.18	0.116	0.41	300	90	9.52	0.15	9.66	11.2	14.372	22.3	0.025	
86436	2.47	475	25.55	0.133	0.45	300	90	8.51	0.21	8.73	7.3	10.908	33.5	0.021	
86437	3.98	485	27.43	0.162	0.46	300	270	7.83	0.00	7.83	12.4	18.231	31.9	0.032	
86444	5.06	483	18.21	0.05	0.41	300	270	12.59	1.01	13.60	11.4	19.159	40.6	0.052	
86444	1.21	530	18	0.071	0.41	300	270	11.23	0.00	11.23	2.9	5.181	44.2	0.013	

10-Year Existing Condition 3-SWMM vs. Rational Formula

Drainage ID	Area, Acres	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	Flow Length		Time of Concentration		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Rational % Difference	Area Weighted Difference %	
						Gutter	Pipe	Overland <T<15	Gutter							Pipe
86451	2.07	482	28.38	0.16	0.47	300		7.79	0.00	0.00	12.8	18.781	31.6	0.032		
86462	2.68	321	18	0.061	0.41	300		11.81	0.00	0.00	5.86	6.4	9.443	32.1	0.022	
86462	4.57	299	13.05	0.038	0.38	300	90	14.42	0.38	0.00	5.34	9.2	15.294	39.6	0.046	
86466	4.4	314	12.35	0.032	0.37	300		15.36	0.00	0.00	5.19	1.9	3.23	40.5	0.010	
86471	0.59	284	44.29	0.022	0.57	150		10.92	0.00	0.00	6.05	10.9	16.437	33.9	0.038	
86475	5.65	288	18.75	0.124	0.41	300		9.06	0.00	0.00	6.26	2.1	2.815	25.8	0.004	
86475	4.09	290	18	0.12	0.41	300		9.26	0.00	0.00	6.26	14.6	23.033	36.7	0.052	
86498	2.34	153	18	0.061	0.41	300		9.42	0.00	0.00	6.26	10.4	17.818	41.4	0.043	
86498	2.72	193	18.21	0.044	0.41	300		11.81	0.00	0.00	5.5	5.6	9.203	39.2	0.023	
86498	2.96	216	42.51	0.061	0.56	300		13.14	0.00	0.00	6.1	6.1	10.942	44.0	0.030	
86510	12.01	154	18	0.06	0.41	300		9.30	0.00	0.00	6.26	10.3	12.787	19.6	0.015	
86519	2.44	75	18	0.048	0.41	300	240	11.87	0.00	0.00	5.5	28.7	43.557	34.1	0.103	
86524	14.21	99	68.31	0.064	0.71	300		12.79	0.91	0.00	5.5	5.5	9.523	42.5	0.026	
86526	3.15	137	18	0.027	0.41	300		6.55	0.00	0.00	6.96	70.2	70.571	0.5	0.002	
86543	15.12	12	11.09	0.033	0.37	N/A		15.49	0.00	0.00	5.19	6.7	9.882	32.5	0.026	
86543	6.31	62	21.93	0.04	0.43	300		0.00	0.00	0.00	7.26	40.2	34.742	-15.8	-0.060	
86556	2.47	35	18	0.213	0.41	300	990	7.78	1.79	0.00	6.26	6.3	10.767	41.4	0.026	
86558	1.37	94	17.1	0.008	0.40	240	120	20.95	1.12	0.00	5.05	2.8	3.542	21.4	0.007	
86558	7.84	100	18.11	0.063	0.41	300	420	11.67	1.39	0.00	5.5	17.6	27.246	35.3	0.070	
86559	45.47	10	7.01	0.046	0.34	N/A		0.00	0.00	0.00	7.26	112.9	109.831	-2.8	-0.032	
86562	7.04	11	1.39	0.087	0.31	N/A		0.00	0.00	0.00	6.26	3.3	7.068	52.7	0.024	
86564	1.78	26	0	0.15	0.30	285		9.86	0.00	0.00	6.26	3.3	7.068	52.7	0.024	
86568	2.45	665	70.32	0.051	0.72	300	210	6.85	0.77	0.00	5.34	72.1	108.742	33.7	-0.000	
86591	24.83	721	40.62	0.061	0.54	300	1350	9.49	4.56	0.00	5.34	72.1	108.742	33.7	-0.000	
86623	4.71	570	33.8	0.029	0.50	300		13.06	0.00	0.00	5.5	13.0	14.452	9.9	0.012	
86624	9.15	554	23.81	0.048	0.44	300	60	12.15	0.23	0.00	5.67	23.0	26.982	14.8	0.034	
86628	9.07	561	40.12	0.039	0.54	300		11.08	0.00	0.00	5.86	28.7	32.422	11.4	0.026	
86628	10.11	618	46.16	0.038	0.58	300	630	10.45	2.69	0.00	5.5	32.1	39.196	18.2	0.046	
86634	13.92	568	37.65	0.016	0.53	240	1140	13.69	7.51	0.00	4.48	32.8	44.371	26.1	0.091	
86641	13.96	569	29.8	0.047	0.48	300	900	11.56	3.46	0.00	5.19	34.7	45.477	23.7	0.083	
86645	12.01	593	34.02	0.013	0.50	300	1050	17.02	7.67	0.00	4.39	26.6	36.037	26.2	0.079	
86648	10.41	595	31.91	0.009	0.49	300	450	19.65	3.95	0.00	4.8	24.6	28.744	14.6	0.038	
86652	7.91	597	59.59	0.051	0.66	300		8.01	0.00	0.13	6.26	33.7	36.317	7.2	0.014	
86655	8.31	603	38.41	0.065	0.53	300		9.51	0.00	0.00	6.26	37.6	33.225	16.9	0.035	
86658	8.76	609	54.38	0.062	0.63	300		8.04	0.00	0.00	6.48	35.6	38.331	7.3	0.016	
86693	3.83	325	31.69	0.027	0.49	300		13.65	0.00	0.00	5.5	10.3	14.091	26.7	0.026	
86695	12	337	18.01	0.035	0.41	300	840	14.21	3.74	0.00	4.92	24.1	31.853	24.4	0.074	
86697	10.17	343	18	0.061	0.41	300	450	11.81	1.52	0.00	5.5	22.8	29.209	21.9	0.056	
86699	8.55	423	18.96	0.06	0.41	300	180	11.77	0.00	0.20	5.86	20.7	28.334	26.8	0.058	
86705	3.15	428	24.12	0.09	0.44	300	150	9.82	0.00	0.17	6.26	8.8	11.778	25.5	0.020	
86707	2.1	443	18	0.058	0.41	300		12.01	0.00	0.00	5.67	4.9	6.973	30.3	0.016	
86707	1.83	452	18	0.089	0.41	300	150	10.41	0.42	0.00	6.05	4.5	7.911	42.9	0.020	
86707	2	467	31.22	0.036	0.49	60	750	5.57	3.29	0.00	6.48	6.3	7.079	10.8	0.005	
86717	5.25	332	13.45	0.067	0.38	300	450	11.90	1.45	0.00	5.5	11.0	12.459	11.8	0.016	
86723	4.37	274	18	0.064	0.41	300		11.62	0.00	0.00	5.86	10.4	13.275	21.3	0.023	
86723	2.52	279	18	0.052	0.41	300		12.45	0.00	0.00	6.05	5.8	8.832	34.0	0.022	
86723	4.45	283	18	0.078	0.41	300		10.88	0.00	0.00	6.05	11.0	15.874	30.8	0.035	
86725	3.76	271	18	0.057	0.41	300		12.08	0.00	0.00	5.67	8.7	11.962	27.3	0.026	
86731	8.26	306	18.03	0.035	0.41	300		14.21	0.00	0.00	5.34	18.0	18.078	0.4	0.001	
86732	26.67	149	18.02	0.087	0.41	300	870	10.49	2.46	0.00	5.67	61.7	109.616	43.7	0.294	
86732	2.75	231	18	0.088	0.41	270	420	9.91	1.18	0.00	5.86	6.6	12.11	45.7	0.032	
86743	4.8	296	18	0.051	0.41	300		12.53	0.00	0.00	5.67	11.1	13.372	17.0	0.021	
86745	5.34	894	22.19	0.04	0.43	300		13.10	0.00	0.00	5.5	12.7	14.631	13.1	0.018	
86757	9.84	126	10.21	0.029	0.36	300		16.15	0.00	0.00	5.19	18.4	26.151	29.5	0.073	
86757	3.6	127	17.92	0.031	0.41	300		14.81	0.00	0.00	5.34	7.8	11.315	30.8	0.028	
86759	14.54	155	49.2	0.085	0.60	300		7.71	0.00	0.00	7.26	58.1	66.858	13.1	0.048	
86760	8.34	183	70.45	0.115	0.72	300		5.21	0.00	0.00	7.26	43.8	42.022	-4.1	-0.009	

Drainage ID	Area, Acres	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	Flow Length		Time to Concentration		Tc, min	intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Rational % Difference	Area Weighted % Difference
						Overland (<=300 ft)	Gutter	Pipe	Overland 5-T<15						
86766	4.75	244	18	0.06	0.41	300		11.87	0.00	0.00	11.4	19.315	41.2	0.049	
86770	5.21	161	18	0.067	0.41	300	90	11.44	0.29	0.00	12.5	21.217	41.3	0.054	
86770	3.94	163	18	0.048	0.41	300		12.79	0.00	0.00	9.1	15.381	40.7	0.040	
86770	2.74	172	18	0.078	0.41	300		10.88	0.00	0.00	6.8	11.707	42.2	0.029	
86770	2.49	214	21.71	0.057	0.43	150	360	8.27	1.26	0.00	6.7	11	39.0	0.024	
86776	3.4	219	18	0.083	0.41	300	300	10.66	0.87	0.00	5.86	13.763	40.9	0.035	
86779	3.19	215	18	0.053	0.41	300		12.37	0.00	0.00	7.4	13.603	45.8	0.037	
86781	3.26	218	18	0.08	0.41	300		10.79	0.00	0.00	8.0	13.684	41.2	0.034	
86782	4.24	236	18	0.076	0.41	300	300	10.97	0.91	0.00	11.88	14.26	28.9	0.031	
86791	3.28	67	18	0.062	0.41	300	150	11.74	0.50	0.00	7.6	10.341	26.6	0.022	
86794	2.15	36	39.02	0.234	0.53	300		6.17	0.00	0.00	6.96	9.587	16.6	0.009	
86795	3.8	56	28.83	0.067	0.47	300		10.37	0.00	0.00	10.9	16.484	34.0	0.033	
86796	3.1	34	29.42	0.214	0.48	300		7.00	0.00	0.00	9.9	12.876	23.0	0.018	
86803	10.09	33	27.59	0.225	0.47	300		7.01	0.00	0.00	31.5	40.942	23.0	0.058	
86806	13.67	98	19.38	0.049	0.42	300	600	12.55	2.26	0.00	6.71	31.5	40.942	23.0	0.058
86811	9.84	96	22.21	0.057	0.43	300		11.64	0.00	0.00	5.34	45.132	32.7	0.112	
86817	11.31	95	17.97	0.036	0.41	300		14.08	0.00	0.00	25.0	35.081	28.8	0.071	
86819	6.34	93	17.86	0.055	0.41	300	60	12.24	0.21	0.00	24.6	30.453	19.1	0.054	
86827	1.58	159	18	0.044	0.41	90	420	7.21	1.67	0.00	14.6	24.863	41.1	0.066	
86831	30.2	30	11.32	0.042	0.37	300	900	14.15	3.66	0.00	4.2	7.16	41.7	0.017	
86834	4.71	66	18.14	0.067	0.41	300		11.43	0.00	0.00	54.7	74.933	27.0	0.206	
86840	13.64	44	32.59	0.22	0.50	300	90	6.73	0.16	0.00	11.43	15.491	27.2	0.032	
86842	8.06	92	18	0.073	0.41	300	60	11.12	0.19	0.00	47.0	58.277	19.3	0.066	
86844	4.82	31	18.04	0.23	0.41	300	300	7.58	0.52	0.00	3.7	7.106	47.5	0.019	
86844	4.82	31	18	0.182	0.41	300		8.20	0.00	0.00	21.3	31.337	32.0	0.065	
86902	8.07	518	0	0.035	0.30	300		16.43	0.00	0.00	6.48	21.3	31.337	32.0	0.065
86906	4.93	574	27.42	0.04	0.46	300	210	12.48	0.88	0.00	12.7	23.325	45.4	0.055	
86910	3.14	577	38.65	0.045	0.53	300		10.73	0.00	0.00	5.19	10.477	-19.9	-0.041	
86931	6.02	468	1.27	0.04	0.31	300		15.56	0.00	0.00	12.6	15.635	19.4	0.024	
86965	4.22	435	31.07	0.009	0.49	300		19.81	0.00	0.00	10.1	11.989	15.7	0.012	
86967	6.34	416	0.26	0.05	0.30	300		14.56	0.00	0.00	9.6	13.869	30.7	0.047	
86968	1.69	425	35.95	0.023	0.52	300		13.80	0.00	0.00	10.7	11.638	8.5	0.009	
86973	6.11	392	24.48	0.034	0.45	300	240	13.54	1.08	0.00	10.2	15.364	33.5	0.054	
86974	5.19	352	17.92	0.057	0.41	300		12.09	0.00	0.00	4.8	5.765	16.9	0.007	
86981	4.31	393	19.96	0.051	0.42	300	60	12.32	0.22	0.00	14.6	14.637	0.4	0.001	
86987	5.39	349	18	0.07	0.41	300		11.28	0.00	0.00	12.0	15.931	24.7	0.032	
86996	30.05	320	0	0.033	0.30	300		11.28	0.00	0.00	10.3	12.377	17.1	0.019	
87002	4	160	26.99	0.067	0.46	300	600	16.75	0.00	0.00	5.86	18.175	29.1	0.040	
87002	6.62	167	18	0.038	0.41	300	480	10.55	1.93	0.00	46.8	29.327	-59.5	-0.451	
87013	4.63	194	18.01	0.075	0.41	300		13.83	2.05	0.00	10.5	17.627	40.6	0.041	
87016	5.25	174	8.6	0.292	0.35	300	480	7.58	0.00	0.00	14.0	21.647	35.2	0.059	
87019	20.52	101	25.03	0.026	0.45	300		14.73	2.48	0.00	11.1	15.819	30.0	0.035	
87021	14	22	0.1	0.03	0.30	N/A		0.00	0.00	0.00	12.4	24.336	49.1	0.065	
87021	3.82	148	0.52	0.059	0.30	300		13.75	0.00	0.00	30.6	32.501	6.0	0.021	
87032	10.05	46	24.63	0.129	0.45	300		8.67	0.00	0.00	5.5	6.4	9.629	33.9	0.033
87035	15	20	5.19	0.133	0.33	N/A		0.00	0.00	0.00	29.2	38.424	24.1	0.061	
87038	6.44	287	18	0.05	0.41	300	120	8.67	0.00	0.00	36.1	48.637	25.9	0.098	
92002	221.86	4	0.49	0.12	0.30	N/A		12.62	0.00	0.00	14.9	19.758	24.6	0.040	
92002	1.84	27	7.79	0.05	0.35	N/A		0.00	0.00	0.00	48.9	666.534	26.8	1.497	
92003	7.09	47	11.64	0.09	0.37	300		10.94	0.00	0.00	4.6	8.675	46.6	0.022	
92006	57.94	16	0.03	0.192	0.30	N/A		0.00	0.00	0.00	15.4	29.086	47.2	0.084	
92012	6.93	91	80.02	0.051	0.78	300	450	5.79	1.66	0.00	126.3	189.444	33.3	0.487	
92012	2.05	111	85	0.067	0.81	300	180	4.80	0.58	0.00	36.3	35.197	-3.1	-0.005	
92014	8.84	115	84.86	0.05	0.81	300		5.30	0.00	0.00	12.1	10.562	-14.1	-0.007	
92018	30.2	89	18.42	0.036	0.41	300	1200	14.03	5.27	0.00	58.1	11.878	48.0	0.365	
92023	15.56	116	24.15	0.059	0.44	300	570	11.30	1.96	0.00	38.1	57.356	33.6	0.132	
92038	253.37	25	0.02	0.061	0.30	N/A		0.00	0.00	0.00	552.1	602.652	8.4	0.536	
92044	25.37	241	25.44	0.05	0.45	300	600	11.80	2.24	0.00	61.3	97.679	37.2	0.238	

10-Year Existing Condition 3-SWMM vs. Rational Formula

Drainage ID	Area, Acres	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	Time _u , Concentration		Pipe	T _c , min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Rational % Difference	Area Weighted Difference
						Overland (<=300 ft)	Gutter							
92052	16.94	243	18.38	0.08	0.41	300	10.75	1.59	12.34	5.67	39.4	64.436	38.8	0.166
92065	3.62	335	18.38	0.056	0.41	300	12.11	0.00	12.11	5.67	8.4	12.824	34.3	0.031
92066	11.03	353	16.82	0.04	0.40	300	13.73	1.25	14.98	5.34	23.6	24.096	2.0	0.006
92069	13.57	354	18	0.037	0.41	300	13.95	1.95	15.90	5.19	28.7	32.762	12.3	0.265
92083	26.9	318	23.47	0.038	0.44	300	13.17	7.05	20.22	4.58	54.3	89.123	39.1	0.265
92088	6	405	18	0.11	0.41	300	9.70	0.60	10.30	6.05	14.8	23.577	37.2	0.056
92094	2.42	359	17.87	0.051	0.41	300	12.55	0.00	12.55	5.67	5.6	6.734	17.0	0.010
92094	7.66	387	20.47	0.037	0.42	300	13.65	1.69	15.34	5.19	16.8	22.952	26.8	0.052
92095	8.7	433	18.86	0.075	0.41	300	10.94	0.91	11.85	5.86	21.1	34.97	39.8	0.087
92098	8.2	403	19.12	0.069	0.41	300	11.22	1.43	12.65	5.67	19.3	30.098	35.9	0.074
92101	3.63	438	18	0.033	0.41	300	14.49	0.00	14.49	5.34	7.9	12.437	36.4	0.033
92128	7.01	481	20.23	0.048	0.42	300	12.54	1.71	14.25	5.34	15.8	18.9	16.5	0.029
92131	7.56	470	18	0.053	0.41	300	12.37	0.00	12.37	5.67	17.5	20.462	14.5	0.028
92142	12.81	472	18.06	0.032	0.41	300	14.63	0.00	14.63	5.34	27.9	29.202	4.3	0.014
92145	12.87	473	19.25	0.028	0.42	300	15.14	0.00	15.00	5.19	27.8	30.003	7.5	0.024
92150	11.44	478	18.03	0.038	0.41	300	13.82	0.00	13.82	5.5	25.7	28.19	8.9	0.026
92298	4.86	51	17.99	0.07	0.41	300	11.28	0.00	11.38	5.86	11.6	20.112	42.2	0.052
92300	3.54	225	18	0.065	0.41	300	11.56	0.59	12.15	5.67	8.2	14.528	43.6	0.039
92301	16.71	235	17.78	0.043	0.41	300	13.29	0.84	14.14	5.34	36.3	58.526	38.0	0.160
92306	14.15	213	21.65	0.047	0.43	300	12.47	1.85	14.32	5.34	32.5	49.037	33.8	0.120
92306	3.89	262	18	0.071	0.41	300	11.23	1.60	12.82	5.67	9.0	17.191	47.7	0.047
92345	6.79	436	24.31	0.075	0.45	300	10.42	0.00	10.42	6.05	18.3	25.787	29.0	0.050
92346	5.34	422	12.92	0.085	0.38	300	11.04	0.00	11.04	5.86	11.8	19.024	37.9	0.051
92363	8.14	291	14.86	0.18	0.39	300	8.46	0.00	8.46	5.34	2.1	3.707	43.0	0.068
92412	1.32	54	0	0.046	0.30	300	15.00	0.00	15.00	5.19	4.4	7.041	37.6	0.027
92412	2.82	55	0	0.04	0.30	300	15.71	0.13	15.13	5.19	4.4	7.041	37.6	0.027
92412	0.99	79	0	0.03	0.30	210	14.47	0.00	14.52	5.34	1.6	3.303	52.0	0.013
92413	0.52	71	0	0.12	0.30	210	14.47	0.00	14.52	5.34	1.6	3.303	52.0	0.013
92414	2.97	50	0	0.131	0.30	N/A	0.00	0.79	5.79	7.26	1.1	2.426	53.3	0.007
92414	2.97	50	0	0.131	0.30	300	10.58	0.00	10.58	6.05	5.4	10.684	49.5	0.037
92591	29.8	654	29.53	0.058	0.48	300	10.81	3.53	14.34	5.34	75.9	104.047	27.0	0.203
92594	8.7	644	43.19	0.024	0.56	300	12.59	1.61	14.21	5.34	26.0	32.877	21.0	0.046
92594	6.78	682	56.06	0.05	0.64	300	8.45	0.78	9.24	6.26	27.0	30.884	12.5	0.021
92594	7.2	703	56.95	0.044	0.64	300	8.72	0.00	8.72	6.48	29.9	32.602	8.2	0.015
92595	9.71	664	83.06	0.022	0.80	300	7.53	0.00	7.53	6.71	52.0	48.906	-6.4	-0.016
92597	6.73	527	41.14	0.055	0.55	300	9.77	0.00	9.77	6.26	23.0	27.473	16.1	0.027
92599	2.82	556	18	0.052	0.41	300	12.45	0.00	12.45	5.67	6.5	8.205	20.5	0.015
92601	9.18	476	26.28	0.068	0.46	300	10.57	0.00	10.57	6.05	25.4	28.674	11.4	0.026
92603	7.38	474	44.23	0.044	0.57	300	10.17	0.00	10.17	6.05	25.2	26.944	6.3	0.012
92604	7.23	479	18.01	0.044	0.41	300	13.16	1.79	14.95	5.34	15.8	19.509	19.2	0.035
92605	23.07	360	50.17	0.064	0.60	300	8.38	0.00	8.38	6.48	89.8	100.633	10.7	0.062
92605	2.34	421	18	0.04	0.41	300	13.59	1.25	14.84	5.34	5.1	7.915	35.6	0.021
92605	5.74	429	18.22	0.02	0.41	300	17.09	1.77	16.77	5.05	11.9	11.865	0.0	0.000
92606	8.76	424	19.39	0.079	0.42	300	10.70	1.78	12.48	5.67	20.7	28.699	27.9	0.062
92607	6.92	447	17.96	0.033	0.41	300	14.50	4.40	18.90	4.8	13.5	22.56	40.0	0.070
92612	13.35	355	19.96	0.029	0.42	300	14.87	3.67	18.54	4.8	26.9	34.128	21.2	0.071
92614	24.42	239	17.55	0.091	0.41	300	10.37	2.90	13.27	5.5	54.4	91.414	40.5	0.249
92615	5.93	312	11.56	0.066	0.37	300	12.14	0.00	12.14	5.67	12.4	16.07	22.7	0.034
92617	13.53	528	52.67	0.043	0.62	300	9.28	0.00	9.28	6.26	52.2	62.072	15.9	0.054
92618	12.35	477	28.23	0.029	0.47	300	13.79	0.00	13.79	5.5	31.9	45.171	29.4	0.092
92619	18.18	444	27.6	0.009	0.47	300	20.49	0.00	15.00	5.19	43.9	40.282	-9.1	-0.041
92628	684.11	3	0.34	0.16	0.30	N/A	0.00	0.00	5.00	7.26	1500.1	2213.085	32.2	5.552
92629	2.84	83	28.66	0.05	0.47	240	10.24	0.89	11.14	5.86	7.9	11.649	32.6	0.023
92629	9.91	85	21.63	0.025	0.43	300	15.40	0.00	16.10	5.05	21.5	31.344	31.4	0.078
92629	5.98	97	17.98	0.019	0.41	300	17.42	0.91	15.91	5.19	12.7	15.119	16.3	0.025
92629	2.3	103	18	0.031	0.41	300	14.80	1.14	15.93	5.19	4.9	7.23	32.6	0.019
92629	9.22	132	18	0.076	0.41	300	10.97	0.00	10.97	6.05	22.8	30.999	26.6	0.062
92633	16.19	15	15.16	0.05	0.39	N/A	0.00	0.00	5.00	7.26	46.0	54.381	15.5	0.063
92640	34.54	7	0.4	0.2	0.30	N/A	0.00	0.00	5.00	7.26	75.8	116.939	35.2	0.306

10-Year Existing Condition SWSMM vs. Rational Formula

Drainage ID	Area, Acres	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	Flow Length			Time of Concentration			Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Rational % Difference	Area Weighted Difference
						Overland (<=300 ft)	Pipe	Gutter	5<T<15	Pipe	Gutter					
92642	12.01	49	33.84	0.041	0.50	300	480	1.98	11.63	0.00	13.60	33.2	47.952	30.7	0.093	
92642	4.31	72	18.5	0.096	0.41	240	330	0.89	9.04	0.00	9.93	11.1	17.962	38.3	0.042	
92649	5.98	256	18	0.08	0.41	300	180	0.53	10.79	0.00	11.32	14.3	22.675	36.9	0.056	
92650	42.88	233	19.06	0.069	0.41	300	210	0.67	11.23	0.00	11.89	10.41	152.811	31.9	0.344	
92650	2.67	300	18	0.107	0.41	300	300	0.76	9.79	0.00	10.55	6.6	10.547	37.5	0.025	
92653	37.6	175	17.65	0.149	0.41	300	630	1.88	10.88	0.00	12.76	28.5	41.989	32.1	0.100	
92656	20.73	234	21.59	0.106	0.43	510	1650	3.56	11.47	0.00	15.03	79.2	136.178	41.8	0.396	
92658	65.75	109	0.75	0.131	0.30	300	450	1.15	9.52	0.00	10.67	53.9	81.245	33.7	0.176	
92658	1.11	164	0	0.055	0.30	210	120	0.43	10.52	0.00	15.01	103.9	174.281	40.4	0.669	
92658	5.15	176	0	0.076	0.30	300	300	0.91	11.82	0.00	12.25	1.9	4.046	53.3	0.015	
92662	2.48	74	7.14	0.073	0.34	300	300	0.91	12.69	0.00	13.59	5.5	14.484	41.3	0.054	
92665	1.19	86	0	0.089	0.30	300	300	0.00	12.17	0.00	12.17	5.67	8.376	42.4	0.027	
92666	1.27	82	0	0.084	0.30	300	300	0.00	12.04	0.00	12.04	4.8	8.376	42.4	0.027	
92667	0.9	70	0.25	0.044	0.30	120	12.87	0.00	12.87	0.00	12.87	2.2	4.872	56.7	0.017	
92669	1.65	52	0	0.145	0.30	300	9.61	0.00	9.61	0.00	9.61	6.26	3.823	55.6	0.018	
92671	3.61	48	0	0.218	0.30	300	10.23	0.00	10.23	0.00	10.23	1.7	3.823	55.6	0.018	
92672	16.44	60	0	0.229	0.30	300	8.93	0.00	8.93	0.00	8.93	7.0	6.877	56.5	0.023	
92673	20.03	53	0	0.153	0.30	300	8.78	0.00	8.78	0.00	9.04	30.9	64.248	51.0	0.046	
92674	4.68	32	0	0.123	0.30	300	10.80	0.00	10.80	0.00	10.80	36.4	58.229	37.6	0.190	
92675	5.46	39	0	0.142	0.30	300	10.05	0.00	10.05	0.00	10.80	8.5	12.58	32.5	0.038	
92683	7.03	351	18.01	0.087	0.41	300	10.30	0.00	10.30	0.00	10.30	9.9	16.286	39.2	0.054	
92684	1.75	374	18	0.103	0.43	300	10.49	0.00	10.49	0.00	10.49	17.4	28.895	39.9	0.071	
92684	6.96	383	26.14	0.103	0.46	300	9.66	0.00	9.66	0.00	9.66	6.26	7.101	18.5	0.101	
92689	5.81	486	18	0.13	0.41	300	8.40	1.43	9.22	0.00	9.82	4.5	7.553	40.8	0.018	
92692	10.49	375	22.63	0.043	0.44	300	9.18	0.00	9.18	0.00	10.15	19.2	27.547	30.2	0.053	
92692	1.64	400	30.16	0.057	0.48	300	15.63	2.89	12.73	0.00	15.63	14.8	24.878	40.4	0.059	
92696	6.6	541	30.22	0.111	0.48	300	10.80	0.00	10.80	0.00	10.80	23.7	38.535	38.4	0.102	
92698	1.47	542	21.92	0.107	0.43	210	8.65	0.38	9.22	0.00	9.02	19.9	26.994	26.3	0.013	
92700	26.13	522	20.34	0.081	0.42	300	7.91	0.54	9.18	0.00	8.45	4.1	6.702	38.7	0.014	
92703	5.89	562	73.36	0.129	0.74	300	10.52	3.16	10.52	0.00	13.69	60.7	84.461	28.2	0.186	
92704	5.56	601	53.57	0.117	0.62	300	4.78	1.04	6.57	0.00	6.04	30.3	29.929	28.2	0.186	
92712	12.23	616	62.63	0.12	0.68	300	6.57	0.00	6.57	0.00	6.57	24.0	27.541	12.7	-0.002	
92719	3.42	523	18	0.07	0.41	300	5.78	0.51	6.28	0.00	6.28	57.5	61.03	5.7	0.018	
92720	16.19	494	37.3	0.062	0.52	300	11.28	0.19	11.28	0.00	11.47	8.2	11.527	29.1	0.025	
92723	5.14	362	18	0.11	0.41	270	9.78	2.41	12.19	0.00	12.19	48.1	60.007	19.9	0.081	
92726	5.38	442	19.06	0.067	0.41	300	9.20	0.00	9.20	0.00	9.20	13.1	20.551	36.1	0.047	
92727	4.77	454	22.92	0.143	0.44	210	11.34	1.16	12.50	0.00	12.50	12.6	19.451	35.0	0.047	
92732	6.17	322	50.08	0.114	0.60	300	7.12	0.46	7.98	0.00	7.98	14.0	21.336	34.4	0.041	
92734	3.96	345	58.97	0.092	0.65	300	6.92	0.00	6.92	0.00	6.92	25.8	29.292	12.0	0.019	
92736	6.55	431	14.36	0.058	0.39	300	6.64	0.00	6.64	0.00	6.64	18.0	19.657	8.3	0.008	
92740	14.76	563	18.64	0.076	0.41	300	12.39	0.42	12.80	0.00	12.80	14.3	20.488	30.0	0.049	
92752	15.33	678	50.4	0.049	0.60	300	10.91	0.63	11.55	0.00	11.55	35.6	48.744	26.9	0.100	
92754	4.57	698	81.59	0.018	0.79	300	9.13	1.92	11.05	0.00	11.05	58.6	67.391	19.7	0.076	
92755	13.44	700	70.03	0.064	0.72	300	7.96	0.00	7.96	0.00	7.96	24.2	22.73	-6.5	-0.008	
92757	6.84	720	62.14	0.014	0.67	300	6.38	1.78	6.38	0.00	8.16	62.7	67.297	6.8	0.023	
92758	8.73	751	62.14	0.014	0.67	300	11.90	0.00	11.90	0.00	11.90	27.0	30.807	12.5	0.021	
92760	3.1	778	53.62	0.02	0.62	300	7.37	0.51	7.88	0.00	7.88	39.4	43.021	8.4	0.018	
92762	4.4	788	26.52	0.055	0.46	300	11.84	0.88	12.72	0.00	12.72	10.9	15.268	28.4	0.022	
92788	12.76	69	16.65	0.115	0.40	300	11.32	0.00	11.32	0.00	11.32	11.8	20.785	43.0	0.048	
92805	24.82	112	10.52	0.225	0.36	300	9.67	1.11	10.78	0.00	10.78	30.9	46.417	33.5	0.108	
92805	24.82	112	10.52	0.225	0.36	300	8.14	0.00	8.14	0.00	8.14	58.4	91.646	36.3	0.227	
Total Area:	3969.92											Total Area Weighted % Difference:				26.0

10-Year Future Conditions - SWMM vs. Rational Formula

Drainage ID	Area, Acres	Subcatch ID	Subcatch Impervious	Percent Imper.	Subcatch Slope, ft/ft	C	Overland (<=300 ft)		Flow Length		Time to Concentration		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Rational % Difference	Area Weighted Difference
							Pipe	Gutter	Pipe	Gutter	5 < T < 15	8 < T < 15						
85452	34.38	198	18	17.93	0.173	0.41	300	120	120	8.34	0.24	8.58	6.48	90.9	108.029	15.9	0.137	
85456	19.71	305	17.5	10.12	0.194	0.41	300	240	240	8.06	0.45	8.52	6.48	51.7	72.252	28.4	0.141	
85479	13.07	327	18.65	5.62	0.118	0.41	300	90	90	9.42	0.22	9.64	6.26	33.7	42.319	20.4	0.067	
85482	5.22	390	30.31	18	0.033	0.48	300	210	210	12.94	0.96	13.91	5.5	13.8	16.846	17.9	0.024	
85484	2.79	381	18	17.47	0.041	0.41	300	120	120	13.48	0.00	13.48	5.5	6.3	9.022	30.6	0.022	
85487	3.82	358	40.53	35.94	0.073	0.54	300	300	300	8.95	0.37	9.32	6.26	13.0	17.903	27.4	0.026	
85488	20.81	382	35.94	60	0.124	0.52	300	150	150	7.87	0.00	7.87	6.71	72.0	74.539	3.4	0.018	
85493	1.44	439	60	17.93	0.04	0.66	300	90	90	8.64	0.00	8.64	6.48	6.2	6.895	10.7	0.004	
85494	4.61	410	60	10.12	0.048	0.66	300	210	210	8.13	0.00	8.13	6.48	19.7	21.81	9.6	0.011	
85498	6.65	437	60	5.62	0.063	0.66	300	150	150	7.43	0.50	8.16	6.48	28.4	32.033	11.2	0.019	
85689	3.27	598	18	17.93	0.072	0.41	300	90	90	11.17	0.00	11.17	5.86	7.8	8.163	39.2	0.032	
85693	2.04	37	17.93	10.12	0.07	0.41	240	90	90	10.09	0.28	10.38	6.05	5.0	8.163	38.4	0.020	
85697	6.84	17	10.12	5.62	0.228	0.36	300	180	180	8.13	0.31	8.44	6.05	16.0	24.992	36.0	0.062	
85698	34.87	14	5.62	0.098	0.33	0.30	300	300	300	11.16	0.80	11.96	5.86	68.2	103.295	34.0	0.298	
85699	3.5	63	18	17.47	0.07	0.41	300	330	330	11.28	0.00	11.28	5.86	8.4	12.136	31.0	0.027	
85901	4.22	38	17.47	0.084	0.40	0.40	300	300	300	10.66	0.95	11.61	5.86	10.0	14.875	32.7	0.035	
85904	9.92	18	0.16	45.96	0.30	0.41	300	300	300	8.54	0.50	9.04	6.26	18.7	32.194	41.9	0.105	
85909	3.7	41	18	17.93	0.071	0.41	300	180	180	7.98	0.00	7.98	6.48	33.2	42.195	21.3	0.048	
85914	8.9	141	45.96	18	0.086	0.58	300	180	180	8.89	0.51	8.49	6.48	5.4	7.786	30.4	0.016	
85920	2.05	249	18	10.12	0.143	0.41	300	420	420	8.89	0.00	8.89	5.86	25.2	35.656	29.3	0.078	
85920	5.34	252	18	5.62	0.047	0.41	300	120	120	10.30	1.15	11.45	5.86	12.0	18.641	35.7	0.048	
85923	5.25	292	18	17.47	0.024	0.41	300	480	480	12.88	0.46	13.34	5.5	11.1	18.142	38.7	0.051	
85927	11.69	295	18.11	42.37	0.066	0.41	300	30	30	16.11	0.00	15.00	5.19	28.0	32.802	14.7	0.043	
85939	7.43	197	18	17.93	0.066	0.41	300	30	30	11.28	1.51	12.79	5.67	17.2	25.61	32.9	0.062	
85939	3.1	223	18	10.12	0.07	0.41	300	480	480	10.79	0.09	10.88	6.05	7.7	11.236	31.9	0.025	
85942	3.61	191	34.04	18	0.08	0.41	300	180	180	8.38	0.45	8.92	6.48	11.8	15.381	23.3	0.021	
85945	1.89	190	60	17.93	0.109	0.50	300	120	120	7.98	0.36	6.96	6.96	8.7	9.359	7.2	0.003	
85948	30.95	207	18.51	42.37	0.078	0.66	270	120	120	8.52	0.00	8.52	6.48	82.4	123.465	33.2	0.259	
85948	14.99	211	18.51	18	0.16	0.41	300	570	570	8.52	0.00	8.52	6.48	52.0	65.948	21.1	0.080	
85948	3.1	250	18	17.93	0.097	0.55	300	60	60	7.98	1.53	9.50	5.86	7.4	11.273	34.3	0.027	
85948	4.16	254	18	17.93	0.063	0.41	300	60	60	11.68	0.00	11.68	5.86	9.9	17.025	41.6	0.044	
85948	1.94	278	18	10.12	0.061	0.41	300	60	60	11.81	0.00	11.81	5.86	4.6	8.072	42.5	0.021	
85948	1.34	247	60	17.93	0.07	0.41	300	60	60	11.28	0.00	11.28	5.86	6.4	6.617	3.0	0.001	
85955	3.92	253	58.56	18	0.08	0.66	300	60	60	5.31	0.18	5.49	7.26	17.1	18.556	7.7	0.008	
85959	2.42	286	29.55	18	0.063	0.65	300	60	60	7.35	0.00	7.35	6.71	17.1	18.556	7.7	0.008	
85975	6.02	546	18	10.12	0.061	0.41	300	60	60	9.44	0.00	9.44	6.26	14.4	19.408	25.8	0.039	
85980	15.58	505	37.07	18	0.033	0.52	300	60	60	11.81	0.00	11.81	5.86	14.4	19.408	25.8	0.039	
85982	6.05	489	59.75	60	0.031	0.66	300	60	60	12.10	0.00	12.10	5.67	46.1	44.526	-3.6	-0.014	
85986	1.66	456	60	17.93	0.08	0.66	270	90	90	9.44	0.00	9.44	6.26	24.9	28.325	12.0	0.018	
85987	4.77	503	18.47	18	0.073	0.41	300	60	60	6.51	0.27	6.77	6.96	7.6	8.368	8.9	0.004	
85995	20.66	445	40.01	18	0.084	0.54	300	570	570	11.08	0.00	11.08	5.86	11.5	18.203	36.9	0.044	
85995	2.22	457	60	10.12	0.123	0.59	300	60	60	8.59	1.64	10.23	6.05	67.5	91.301	26.1	0.136	
86001	10.49	487	48.88	18	0.119	0.59	300	60	60	5.94	0.00	5.94	6.96	10.6	10.861	2.1	0.001	
86002	3.35	543	18	17.93	0.093	0.41	300	60	60	6.92	0.00	6.92	6.96	43.3	48.452	10.6	0.028	
86009	2.57	458	60	10.12	0.081	0.66	300	60	60	10.26	0.16	10.42	6.05	8.3	12.978	36.3	0.031	
86009	4.55	488	60	17.93	0.081	0.66	300	90	90	6.83	0.00	6.83	6.96	11.8	12.402	4.8	0.003	
86011	24.95	514	39.36	18	0.104	0.66	270	90	90	5.96	0.23	6.19	6.96	20.9	22.32	6.4	0.007	
86015	10.84	636	42.52	18	0.135	0.54	300	180	180	7.38	0.41	7.79	6.71	89.8	109.319	17.9	0.112	
86017	8.44	626	28.74	18	0.109	0.56	300	390	390	7.66	0.98	8.65	6.48	39.0	48.938	20.3	0.055	
86021	6.5	572	18	17.93	0.045	0.47	300	180	180	9.41	1.08	10.49	6.05	24.1	28.96	16.7	0.036	
86029	5.22	584	18	10.12	0.045	0.41	300	450	450	13.07	0.71	13.77	5.5	14.6	20.141	27.6	0.045	
86030	9.23	606	18	17.93	0.045	0.41	270	450	450	11.26	1.53	12.79	5.67	12.1	20.015	39.7	0.052	
86033	2.31	559	18	10.12	0.094	0.41	300	60	60	10.22	0.00	10.22	6.05	22.8	35.165	35.2	0.082	
86034	4.26	560	18	5.62	0.064	0.41	270	60	60	11.02	0.00	11.02	5.86	5.5	8.654	36.2	0.021	
86043	7.79	566	18	17.93	0.088	0.41	240	540	540	9.35	1.52	10.86	6.05	10.5	17.188	38.8	0.042	
86049	8.54	590	18	10.12	0.097	0.41	300	120	120	10.12	0.32	10.44	6.05	19.2	30.642	37.2	0.073	
86055	6.28	591	58.66	18	0.091	0.41	300	60	60	10.33	0.00	10.33	6.05	21.1	31.504	33.1	0.071	
86055	6.28	591	58.66	18	0.043	0.65	300	60	60	8.59	0.00	8.59	6.48	26.5	29.704	10.7	0.017	

10-Year Future Conditions SWMM vs. Rational Formula

Drainage ID	Area, Acres	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	Overland (<=300 ft)	Flow Length		Time to Concentration		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Rational % Difference	Area Weighted Difference %	
							Gutter	Pipe	Overland 5<T<15	Gutter							Pipe
86064	2.3	624	18	0.081	0.41	300	210	0.61	10.74	0.00	11.36	5.5	9.008	39.0	0.023	-0.023	
86156	2.66	736	85	0.053	0.81	300	300	0.00	5.19	0.00	5.19	7.26	13.749	-13.8	0.009	-0.009	
86195	6.93	663	60.64	0.08	0.66	300	300	0.88	6.80	0.00	7.68	30.9	33.973	9.1	0.016	0.016	
86197	6.77	642	64.87	0.045	0.69	300	210	0.83	7.76	0.00	8.58	30.2	32.733	7.6	0.013	0.013	
86199	3.87	666	85	0.048	0.81	270	270	1.03	5.08	0.00	6.11	6.96	19.874	-9.8	0.010	-0.010	
86201	4.91	674	85	0.026	0.81	300	720	3.72	6.58	0.00	10.30	21.8	24.884	3.3	0.004	0.004	
86205	2.83	645	69.14	0.035	0.71	240	660	2.94	7.07	0.00	10.01	12.2	14.033	12.8	0.009	0.009	
86210	4.22	648	62.82	0.1	0.68	120	630	1.66	3.87	0.00	6.66	6.8	7.229	6.2	0.002	0.002	
86237	5.9	313	18	0.028	0.81	300	120	0.60	6.41	0.00	7.01	22.9	21.349	-7.4	0.008	-0.008	
86238	8.21	315	18	0.065	0.41	300	270	0.80	10.79	0.00	11.58	14.1	22.301	36.7	0.055	0.055	
86240	3.08	328	18	0.052	0.41	300	510	1.67	11.56	0.00	13.23	18.4	25.358	27.3	0.057	0.057	
86241	2.15	364	18	0.028	0.41	300	60	0.30	15.31	0.00	15.30	4.6	7.237	37.1	0.020	0.020	
86244	0.9	309	18	0.053	0.41	180	60	0.00	12.45	0.00	12.45	5.5	11.287	36.9	0.029	0.029	
86259	7.86	406	59.36	0.064	0.66	300	360	0.00	7.45	0.00	9.58	2.3	3.969	42.1	0.010	0.010	
86264	3.08	434	59.05	0.096	0.65	300	360	0.00	6.54	0.00	8.64	33.4	38.61	13.4	0.027	0.027	
86272	4.58	432	60	0.08	0.66	300	450	0.00	6.86	0.00	6.93	14.0	15.201	7.7	0.006	0.006	
86273	3.37	453	60	0.075	0.66	300	300	0.91	7.01	0.00	7.92	14.9	16.22	8.0	0.007	0.007	
86277	10.31	402	63.96	0.1	0.68	285	480	1.26	5.87	0.00	7.14	47.3	51.142	7.5	0.019	0.019	
86285	8.65	324	58.45	0.059	0.65	300	480	0.00	7.75	0.00	7.75	37.8	39.974	5.5	0.012	0.012	
86288	4.52	385	18.21	0.117	0.41	300	450	0.00	9.49	0.00	9.49	11.6	18.238	36.5	0.097	0.097	
86291	6.93	401	59.91	0.104	0.66	240	450	1.16	5.63	0.00	6.79	6.96	34.096	6.7	0.012	0.012	
86303	9.77	293	18	0.059	0.41	300	120	0.00	11.94	0.00	11.94	23.4	34.891	33.1	0.081	0.081	
86305	16.09	294	20.54	0.056	0.42	300	120	0.42	11.88	0.00	12.30	38.6	54.511	29.2	0.118	0.118	
86317	11.18	367	18	0.05	0.41	300	600	2.24	12.62	0.00	14.85	24.4	37.176	34.5	0.097	0.097	
86318	8.98	366	18	0.094	0.41	300	660	1.79	10.22	0.00	12.02	20.8	34.483	39.8	0.090	0.090	
86319	6.43	368	18	0.057	0.41	300	120	0.00	12.08	0.00	12.50	18.9	30.511	38.1	0.078	0.078	
86323	6.68	583	11.85	0.071	0.37	300	120	0.00	9.25	0.00	11.82	14.0	19.236	27.3	0.044	0.044	
86325	8.24	625	56.49	0.036	0.64	300	300	1.11	9.38	0.00	10.36	6.05	28.285	15.8	0.027	0.027	
86330	16.34	607	54.97	0.064	0.63	300	360	1.19	7.90	0.00	11.75	30.9	39.108	21.1	0.044	0.044	
86339	5.92	491	60	0.112	0.66	300	150	0.40	6.13	0.00	9.08	64.4	78.064	17.5	0.006	0.006	
86339	1.26	513	60	0.1	0.66	150	150	0.40	4.50	0.00	5.40	6.0	6.308	4.2	0.006	0.006	
86351	3.91	484	60	0.12	0.66	120	1140	2.74	3.79	0.00	7.74	17.3	19.566	11.5	0.011	0.011	
86354	1.58	558	60	0.08	0.66	N/A	840	0.00	0.00	0.00	7.48	7.0	7.898	11.4	0.005	0.005	
86357	11.79	524	57.12	0.144	0.64	300	330	0.72	5.86	0.00	6.58	52.7	57.325	8.0	0.024	0.024	
86359	1.31	581	36.42	0.222	0.52	210	90	0.00	5.40	0.00	5.50	4.9	6.372	22.6	0.007	0.007	
86364	4.04	588	85	0.012	0.81	300	240	1.83	8.51	0.00	10.33	19.8	19.429	-1.9	-0.002	-0.002	
86366	3.93	610	84.95	0.017	0.81	270	360	2.41	7.19	0.00	9.50	19.9	20.043	0.6	0.001	0.001	
86371	7.09	623	85	0.043	0.81	300	600	2.41	5.56	0.00	7.97	38.5	36.261	-6.3	-0.011	-0.011	
86373	4.41	619	85	0.018	0.81	300	90	0.00	7.43	0.00	7.43	24.0	21.933	-9.3	-0.010	-0.010	
86376	12.82	611	53.47	0.033	0.62	300	360	1.05	10.03	0.00	10.45	26.3	29.146	9.8	0.015	0.015	
86379	6	620	58.86	0.081	0.65	300	360	1.05	6.94	0.00	7.99	26.7	29.297	8.8	0.013	0.013	
86402	6.03	346	60	0.052	0.66	300	180	0.00	7.92	0.00	7.92	17.7	18.697	5.3	0.005	0.005	
86412	3.82	448	60.94	0.097	0.67	300	180	0.00	6.35	0.00	6.35	6.96	6.038	11.5	0.004	0.004	
86412	1.25	455	60	0.043	0.66	240	180	0.72	7.55	0.00	8.27	5.3	12.813	6.1	0.004	0.004	
86412	2.62	446	60	0.113	0.66	300	150	0.37	6.71	0.00	6.48	12.0	12.813	6.1	0.004	0.004	
86412	3.37	451	60	0.048	0.66	270	90	0.34	7.71	0.00	8.06	14.4	16.248	11.3	0.010	0.010	
86426	9.79	289	60	0.126	0.66	300	150	0.00	5.90	0.00	5.90	7.26	47.628	1.5	0.004	0.004	
86426	1.9	326	60	0.093	0.66	300	150	0.00	6.52	0.00	6.52	6.96	9.28	5.9	0.003	0.003	
86428	6.43	316	60	0.12	0.66	300	180	0.36	5.99	0.00	6.35	29.5	31.492	6.2	0.010	0.010	
86428	1.57	334	60	0.073	0.66	300	180	0.56	7.07	0.00	7.63	7.0	7.712	9.8	0.004	0.004	
86429	3.24	440	60	0.05	0.66	300	60	0.00	8.02	0.00	8.02	6.48	15.681	11.6	0.009	0.009	
86431	4.36	450	60	0.116	0.66	300	60	0.15	6.06	0.00	6.06	13.9	20.417	1.9	0.002	0.002	
86436	2.47	475	60	0.133	0.66	300	90	0.21	5.79	0.00	6.00	6.96	12.224	3.2	0.002	0.002	
86437	3.98	485	60	0.162	0.66	300	270	0.00	5.42	0.00	5.42	7.26	19.1	19.804	3.7	0.004	0.004
86444	5.06	483	60	0.05	0.66	300	270	1.01	8.02	0.00	9.03	6.26	24.493	14.6	0.019	0.019	
86444	1.21	530	60	0.071	0.66	300	270	0.00	7.14	0.00	7.14	5.4	5.993	10.6	0.003	0.003	

Drainage ID	Area, Acres	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	Flow Length		Time to Concentration		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Rational % Difference	Area Weighted % Difference
						Overland (<=300 ft)	Pipe	Overland 5<T<=15	Gutter						
86451	4.07	482	60	0.16	0.66	300		5.44	0.00	5.44	7.26	19.5	20.267	3.8	0.004
86462	2.68	321	18	0.061	0.41	300		11.81	0.00	11.81	5.86	6.4	9.443	32.1	0.022
86462	4.57	289	13.07	0.038	0.38	300	90	14.42	0.38	14.80	5.34	9.2	15.297	39.6	0.046
86466	4.4	317	18	0.077	0.41	300		15.37	0.00	15.00	6.05	1.9	3.228	40.5	0.010
86471	0.59	288	60	0.124	0.66	150		10.93	0.00	10.93	6.71	2.6	16.433	33.9	0.038
86475	5.65	284	60	0.12	0.66	300		7.46	0.00	7.46	7.26	27.1	2.926	10.7	0.002
86475	4.09	290	60	0.12	0.66	300		5.93	0.00	5.99	7.26	19.6	27.335	2.4	0.003
86498	2.34	153	18	0.061	0.41	300		9.99	0.00	9.99	5.86	5.6	20.309	3.5	0.004
86498	2.72	193	18	0.044	0.41	300		11.81	0.00	11.81	5.86	6.1	9.203	39.2	0.023
86510	12.01	154	18	0.06	0.41	300		13.17	0.00	13.17	5.5	7.1	10.926	44.1	0.030
86519	2.44	75	18	0.048	0.41	300	240	11.81	0.00	11.87	5.86	28.7	10.43	32.1	0.024
86524	14.21	99	67.95	0.064	0.71	300		11.87	0.00	13.70	5.5	5.5	43.557	34.1	0.103
86526	3.15	137	18	0.027	0.41	300		12.79	0.91	13.70	5.5	5.5	9.523	42.5	0.026
86543	15.12	12	11.39	0.033	0.37	N/A		6.59	0.00	6.59	6.96	70.0	70.498	0.7	0.003
86556	2.47	62	18	0.04	0.41	300		15.49	0.00	15.00	5.19	6.7	9.882	32.5	0.026
86558	1.37	94	59.72	0.04	0.66	300	990	0.00	0.00	5.00	7.26	40.4	34.953	-15.7	-0.060
86558	7.84	100	18	0.008	0.41	240	120	13.59	0.00	13.59	5.5	14.2	20.131	29.7	0.047
86559	45.47	10	9.25	0.046	0.36	N/A	420	20.79	1.12	16.12	5.05	2.8	3.598	21.5	0.007
86562	7.04	11	1.76	0.087	0.31	N/A		11.68	1.39	13.08	5.5	17.6	27.215	35.4	0.070
86564	1.78	26	2.14	0.15	0.31	285		0.00	0.00	5.00	7.26	17.4	114.389	-2.6	-0.030
86568	2.45	665	84.9	0.051	0.81	300	210	9.70	0.00	9.70	6.26	3.5	7.167	51.4	0.023
86591	24.83	721	41.72	0.061	0.55	300	1350	5.26	0.77	6.04	6.96	13.8	12.498	-10.4	-0.006
86624	4.71	570	60	0.029	0.66	300	60	9.62	0.00	9.62	6.26	19.5	109.474	31.3	0.196
86628	9.07	561	62.71	0.048	0.68	300		7.83	0.23	8.06	6.48	40.1	41.271	1.9	0.002
86634	13.92	568	63.36	0.038	0.71	300	630	7.70	0.00	7.70	6.71	43.3	42.225	2.8	0.007
86641	13.96	569	60.02	0.016	0.66	240	1140	8.39	2.69	11.08	5.86	40.3	45.676	11.8	0.006
86645	12.01	593	64.91	0.047	0.66	300	900	10.49	7.51	18.00	4.8	44.1	58.005	24.0	0.084
86648	10.41	595	60.01	0.013	0.69	300	1050	8.19	3.46	11.65	5.86	54.0	62.044	13.0	0.046
86652	7.91	597	60	0.009	0.66	300	450	11.73	7.67	19.40	4.69	38.8	52.233	25.7	0.078
86655	8.31	603	60.05	0.051	0.66	300		14.21	3.95	18.16	4.8	33.0	42.146	21.7	0.057
86658	8.76	609	67.88	0.065	0.66	300		7.97	0.00	8.10	6.48	33.8	36.411	7.1	0.014
86693	3.83	325	28.8	0.062	0.71	300		7.35	0.00	7.35	6.71	36.8	38.76	5.0	0.010
86697	10.17	337	18	0.027	0.47	300		6.66	0.00	6.66	6.96	43.1	41.841	-3.1	-0.007
86699	8.55	423	18	0.035	0.41	300	840	14.04	0.00	14.04	5.34	9.7	13.669	29.3	0.028
86705	3.15	428	18	0.061	0.41	300	450	11.81	3.74	17.95	4.92	24.1	31.849	24.4	0.074
86707	2.1	443	25.13	0.06	0.41	300		11.87	1.52	13.33	5.5	22.8	29.209	21.9	0.056
86707	1.83	452	32.87	0.058	0.45	300	150	11.87	0.00	10.53	6.05	7.8	28.015	29.4	0.063
86717	5.25	332	10.57	0.089	0.50	300		10.36	0.00	10.53	6.05	8.7	11.121	29.9	0.024
86723	4.37	274	18	0.036	0.63	60	750	11.27	0.00	11.27	5.86	5.5	7.538	26.4	0.014
86723	2.52	279	18	0.064	0.41	300	450	9.07	0.42	9.49	6.26	5.7	8.414	32.3	0.015
86723	4.45	283	18	0.052	0.41	300		4.31	3.29	8.29	6.48	8.1	7.776	7.5	0.004
86725	3.76	271	18	0.078	0.41	300		12.18	1.45	13.63	5.5	10.5	11.752	10.7	0.014
86731	8.26	306	54.81	0.035	0.63	300		11.62	0.00	11.62	5.86	10.4	13.275	21.3	0.023
86732	26.67	149	18	0.087	0.41	300	870	12.45	0.00	12.45	5.86	5.8	8.832	34.0	0.022
86732	2.75	231	18	0.088	0.41	270	420	10.88	0.00	10.88	6.05	11.0	15.874	30.8	0.035
86743	4.8	296	18	0.051	0.41	300		12.08	0.00	12.08	5.67	8.7	11.962	27.3	0.026
86745	5.34	894	18	0.04	0.41	300		9.67	0.00	9.67	6.26	32.5	32.25	-0.8	-0.002
86757	9.84	126	10.25	0.029	0.36	300		10.49	2.46	12.95	5.67	61.7	109.604	43.7	0.294
86757	3.6	127	17.94	0.031	0.41	300		9.91	1.18	12.11	5.86	6.6	12.11	45.7	0.032
86759	14.54	155	45.71	0.085	0.57	300		13.59	0.00	12.53	5.67	11.1	13.372	17.0	0.021
86760	8.34	183	62.76	0.115	0.68	300		16.15	0.00	15.00	5.19	12.0	13.595	11.9	0.016
								14.80	0.00	14.80	5.34	7.8	11.318	30.8	0.073
								8.03	0.00	8.03	6.48	54.1	65.653	17.6	0.064
								5.85	0.00	5.85	7.26	41.0	41.341	0.9	0.002

Drainage ID	Area, Acres	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	Overland (<=300 ft)	Flow Length		Time of Concentration			Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM % Difference	Rational % Difference	Area Weighted Difference %
							Gutter	Pipe	Pipe	5<T<15	Overland							
86766	4.75	244	18	0.06	0.41	300												
86770	5.21	161	18	0.067	0.41	300												
86770	3.94	163	18	0.048	0.41	300												
86770	2.74	172	18	0.078	0.41	300												
86770	2.49	214	18	0.057	0.41	150												
86776	3.4	219	18	0.083	0.41	300												
86779	3.19	215	18	0.053	0.41	300												
86781	3.26	218	18	0.08	0.41	300												
86782	4.24	236	18	0.076	0.41	300												
86791	3.28	67	18.51	0.062	0.41	300												
86794	2.15	36	50.01	0.234	0.60	300												
86795	3.8	56	60	0.067	0.66	300												
86796	3.1	34	59.98	0.214	0.66	300												
86803	10.09	33	59.65	0.225	0.66	300												
86806	13.67	98	18	0.049	0.41	300												
86811	9.84	96	18.24	0.057	0.41	300												
86817	11.31	95	18	0.036	0.41	300												
86819	6.34	93	17.81	0.055	0.41	300												
86827	1.58	159	18	0.044	0.41	90												
86831	30.2	30	12.51	0.042	0.38	300												
86834	4.71	66	21.98	0.067	0.43	300												
86840	13.64	44	49.84	0.22	0.60	300												
86840	1.56	92	18.98	0.073	0.41	300												
86842	8.06	40	18.07	0.23	0.41	300												
86844	4.82	31	39.11	0.182	0.53	300												
86902	8.07	518	0	0.035	0.30	300												
86906	4.93	574	61.4	0.04	0.67	300												
86910	3.14	577	67.34	0.045	0.70	300												
86931	6.02	468	3.56	0.04	0.32	300												
86965	4.22	435	52.6	0.009	0.62	300												
86967	6.34	416	0.1	0.05	0.30	300												
86968	1.69	425	58.34	0.023	0.65	300												
86973	6.11	392	29.31	0.034	0.48	300												
86974	5.19	352	18	0.057	0.41	300												
86981	4.31	393	18	0.051	0.41	300												
86987	5.39	349	18	0.07	0.41	300												
86996	30.05	320	0.04	0.033	0.30	300												
87002	4	160	27.48	0.067	0.46	300												
87002	6.62	167	19.4	0.038	0.42	300												
87013	4.63	194	45.73	0.075	0.57	300												
87016	5.25	174	45.48	0.292	0.57	300												
87019	20.52	101	24.76	0.026	0.45	300												
87021	14	22	0	0.03	0.30	N/A												
87021	3.82	148	31.51	0.059	0.49	300												
87032	10.05	46	17.98	0.129	0.41	300												
87035	15	20	4.8	0.133	0.33	N/A												
87038	6.44	287	18	0.05	0.41	300												
92002	221.86	4	0.5	0.12	0.30	N/A												
92002	1.84	27	7.75	0.05	0.35	N/A												
92003	7.09	47	41.38	0.09	0.55	300												
92006	57.94	16	0	0.192	0.30	N/A												
92012	6.93	91	75.16	0.051	0.75	300												
92012	2.05	111	85	0.067	0.81	300												
92014	8.84	115	60.59	0.05	0.66	300												
92018	30.2	89	17.93	0.036	0.41	300												
92023	15.56	116	25.6	0.059	0.45	300												
92038	253.37	25	0.03	0.061	0.30	N/A												
92044	25.37	241	29.44	0.05	0.48	300												

Drainage ID	Area, Acres	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	Flow Length		Time to Concentration		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSMM - Rational % Difference	Area Weighted % Difference
						Overland (<=300 ft)	Pipe	Overland 5<T<15	Gutter						
92052	16.94	243	17.31	0.08	0.40	300	540	10.85	1.59	0.00	5.67	38.8	63.871	39.3	0.168
92065	3.62	335	18.38	0.056	0.41	300		12.11	0.00	0.00	5.67	8.4	12.824	34.3	0.031
92066	11.03	353	17.37	0.04	0.40	300	300	13.67	1.25	0.00	5.34	23.8	24.392	2.4	0.007
92069	13.57	354	49.62	0.037	0.60	300	450	10.12	1.95	0.00	5.67	46.0	52.205	11.9	0.041
92083	26.9	318	43.29	0.038	0.56	300	1650	10.79	7.05	0.00	4.92	74.1	109.389	32.3	0.219
92088	6	405	59.88	0.11	0.66	300	240	6.18	0.60	0.00	6.96	27.5	29.264	5.9	0.009
92094	2.42	359	34	0.051	0.50	300		10.80	0.00	0.00	6.05	7.4	8.419	12.4	0.008
92094	7.66	387	37.88	0.037	0.53	300	390	11.54	1.69	0.00	5.5	22.2	28.483	22.0	0.042
92095	8.7	433	53.82	0.075	0.62	300	300	7.60	0.91	0.00	6.48	35.1	41.751	15.9	0.035
92098	8.2	403	59.84	0.069	0.66	300	450	7.22	1.43	0.00	6.48	35.0	39.32	10.9	0.023
92101	3.63	438	60	0.033	0.66	300		9.21	0.00	0.00	6.26	15.0	17.231	13.0	0.012
92128	7.01	481	60	0.048	0.66	300	450	8.13	1.71	0.00	6.26	29.0	30.624	5.4	0.010
92131	7.56	470	60	0.053	0.66	300		7.87	0.00	0.00	6.71	33.5	33.473	-0.0	-0.000
92142	12.87	472	60	0.032	0.66	300		9.31	0.00	0.00	6.26	52.9	53.574	1.2	0.004
92145	12.87	473	60	0.028	0.66	300		9.73	0.00	0.00	6.26	53.2	53.778	1.1	0.004
92150	11.44	478	60	0.038	0.66	300		8.79	0.00	0.00	6.48	48.9	49.143	0.4	0.001
92298	4.86	51	17.72	0.07	0.41	300		11.31	0.00	0.10	5.86	11.6	20.08	42.4	0.052
92300	3.54	225	18	0.065	0.41	300	180	11.56	0.59	0.00	5.67	8.2	14.528	43.6	0.039
92301	16.71	235	22.5	0.043	0.44	300	210	12.75	0.84	0.00	5.5	40.0	61.31	34.8	0.146
92306	14.15	213	18.3	0.047	0.41	300	480	12.85	1.85	0.00	5.34	31.0	47.237	34.4	0.123
92306	3.89	262	18	0.071	0.41	300	510	11.23	1.60	0.00	5.67	9.0	17.191	47.7	0.047
92345	6.79	436	59.96	0.075	0.66	300		7.01	0.00	0.00	6.71	30.1	32.582	7.7	0.013
92346	5.34	422	28.77	0.085	0.47	300		9.58	0.00	0.00	6.26	15.8	21.744	27.3	0.037
92363	8.14	291	18	0.18	0.41	300		8.23	0.00	0.00	6.48	21.5	31.58	31.9	0.065
92412	1.32	54	18	0.046	0.41	300		12.97	0.00	0.00	5.67	3.1	4.617	33.9	0.011
92412	2.82	55	18	0.04	0.41	300	30	13.59	0.13	0.00	5.5	6.3	9.141	30.8	0.022
92412	0.99	79	18	0.03	0.41	210		12.52	0.00	0.05	5.67	2.3	3.873	40.9	0.010
92413	0.52	71	18	0.12	0.41	N/A		9.15	0.00	0.00	7.26	1.5	2.506	38.5	0.005
92414	2.97	50	18	0.131	0.41	300	330	8.75	0.00	0.00	6.26	7.6	12.201	37.8	0.028
92591	29.8	654	49.29	0.058	0.60	300	1020	8.75	3.53	0.00	5.67	100.7	126.16	20.2	0.152
92594	8.7	644	78.8	0.024	0.77	300	300	7.62	1.61	0.00	6.26	42.1	43.191	2.6	0.006
92594	6.78	682	84.81	0.05	0.81	300	210	5.31	0.78	0.00	6.96	38.2	34.791	-9.7	-0.017
92594	7.2	703	82.59	0.044	0.80	300		5.79	0.00	0.00	7.26	41.6	36.734	-13.2	-0.024
92595	9.71	664	85	0.022	0.81	300	180	6.95	0.00	0.30	6.71	52.8	49.234	4.3	0.007
92597	6.73	527	62	0.055	0.67	300		7.56	0.00	0.00	6.71	30.3	31.694	4.2	0.007
92599	2.82	556	60	0.052	0.66	300		7.92	0.00	0.00	6.71	12.5	12.762	2.1	0.002
92601	9.18	476	59.74	0.068	0.66	300		7.27	0.00	0.00	6.71	40.6	40.805	0.6	0.001
92603	7.38	474	60	0.044	0.66	300		8.37	0.00	0.00	6.48	31.6	31.69	0.4	0.001
92604	7.23	479	60	0.044	0.66	300	450	8.37	1.79	0.00	6.05	28.9	31.981	9.7	0.018
92605	23.07	360	45.8	0.064	0.57	300		8.37	0.00	0.00	6.48	85.9	97.402	11.8	0.068
92605	2.34	421	60	0.04	0.66	300	300	8.64	1.25	0.00	6.26	9.7	11.036	12.4	0.007
92605	5.74	429	60	0.02	0.66	300	300	10.89	1.77	0.00	5.67	21.5	23.135	7.2	0.010
92606	8.76	424	48.54	0.079	0.59	300	600	7.96	1.78	0.00	6.26	32.4	37.876	14.4	0.032
92607	6.92	447	32.26	0.033	0.49	300	960	12.70	4.40	0.00	4.92	16.8	26.293	36.1	0.063
92612	13.35	355	40.01	0.029	0.54	300	750	12.24	3.67	0.00	5.19	37.4	46.333	19.2	0.065
92614	24.42	239	17.27	0.091	0.40	300	1050	10.40	2.90	0.00	5.5	54.2	91.194	40.6	0.249
92615	5.93	312	11.73	0.066	0.37	300		12.13	0.00	0.00	6.48	12.5	16.114	22.7	0.034
92617	13.53	528	61.67	0.043	0.67	300		8.24	0.00	0.00	5.67	58.7	64.887	9.5	0.032
92618	18.18	444	56.35	0.029	0.63	300		10.37	0.00	0.00	6.05	46.8	55.83	16.2	0.051
92619	18.18	444	56.35	0.009	0.64	300		14.92	0.00	0.00	5.34	61.9	65.311	5.1	0.024
92628	684.11	3	0.03	0.16	0.30	N/A		14.92	0.00	0.00	7.26	1490.9	2204.594	32.4	5.579
92629	2.84	83	18	0.05	0.41	240	240	11.28	0.89	0.00	5.67	6.6	10.736	38.8	0.028
92629	9.91	85	18	0.025	0.41	300		15.90	0.00	1.10	5.05	20.4	29.838	31.6	0.079
92629	5.98	97	18	0.019	0.41	300	150	17.42	0.91	0.00	5.19	12.7	15.124	16.3	0.025
92629	2.3	103	18	0.031	0.41	300	240	14.80	1.14	0.00	5.19	4.9	7.23	32.6	0.019
92629	9.22	132	18	0.076	0.41	300		10.97	0.00	0.00	6.05	22.8	30.999	26.6	0.062
92633	16.19	15	13.38	0.05	0.38	N/A		0.00	0.00	0.00	7.26	44.7	53.305	16.1	0.066
92640	34.54	7	0.11	0.2	0.30	N/A		0.00	0.00	0.00	7.26	75.4	116.539	35.3	0.307

Drainage ID	Subcatch ID	Subcatch Area (sq. ft.)	Percent Impervious	Subcatch Slope (ft/ft)	C	Flow Length		Time of Concentration		Tc min	Intensity in/hr	Rational Q cfs	XPSWMM Q cfs	XPSWMM - Rational % Difference	Area Weighted % Difference
						Overland (<300 ft)	Pipe	Overland (<15 min)	Pipe						
84550	8.58	646	47.6	0.033	0.59	300	10.77	0.00	0.00	10.77	6.05	30.4	29.682	-2.4	-0.003
84582	6.04	748	21.32	0.071	0.43	300	10.90	0.00	0.00	10.90	6.05	15.6	19.862	21.3	0.022
84583	9.06	714	12.36	0.074	0.37	300	11.61	0.00	0.00	11.61	5.86	19.9	19.126	-3.9	-0.006
84588	11.31	749	15.67	0.044	0.39	300	13.43	0.00	0.00	13.43	5.5	24.5	25.859	5.2	0.010
84591	14.6	649	18	0.074	0.41	300	11.07	0.00	0.00	11.07	5.86	34.9	42.416	17.7	0.044
84591	26.91	612	0.38	0.06	0.30	N/A	0.00	0.00	0.00	5.00	7.26	59.1	65.051	9.2	0.042
84593	12.67	578	0	0.08	0.30	N/A	0.00	0.00	0.00	5.00	7.26	27.6	33.176	16.8	0.036
84595	20.2	539	0	0.06	0.30	N/A	0.00	0.00	0.00	5.00	7.26	44.0	48.474	9.2	0.031
84597	6.74	537	13.61	0.044	0.38	300	13.67	0.00	0.00	13.67	5.5	14.1	18.697	24.3	0.028
84598	2.78	537	12.39	0.058	0.37	300	12.59	0.00	0.00	12.59	5.67	5.9	9.856	40.1	0.019
84606	1.5	584	2.64	0.071	0.32	210	10.64	0.28	0.00	10.92	6.05	2.9	5.248	45.4	0.011
84609	11.63	471	12.97	0.074	0.38	300	11.55	0.00	0.00	11.55	5.86	25.7	30.778	16.3	0.032
84609	1.83	506	18	0.081	0.41	300	10.74	0.61	0.00	11.36	5.86	4.4	7.116	38.5	0.012
84618	1.26	499	18	0.044	0.41	300	13.17	0.60	0.00	13.76	5.5	2.8	4.251	33.5	0.007
84621	4.39	500	18	0.062	0.41	300	11.74	0.50	0.00	12.25	5.67	10.2	14.544	30.2	0.022
84621	29.18	585	3.97	0.049	0.32	300	14.25	0.00	0.00	14.25	5.34	50.5	43.431	-16.2	-0.080
84622	1.3	587	0	0.062	0.30	300	13.58	0.60	0.00	14.25	5.34	2.1	3.657	43.1	0.009
84624	4.74	536	9.44	0.047	0.36	300	13.84	0.00	0.00	13.84	5.5	9.3	11.884	21.8	0.017
84633	50.13	412	0	0.058	0.30	N/A	0.00	0.00	0.00	5.00	7.26	109.2	105.608	-3.4	-0.029
84637	1.33	409	0	0.015	0.30	N/A	0.00	0.00	0.00	8.67	6.48	2.6	3.034	14.8	0.003
84638	5.89	386	0.12	0.038	0.30	300	15.97	0.51	0.00	15.51	5.19	9.2	12.536	26.7	0.026
84640	2.1	384	0	0.024	0.30	240	16.66	0.40	0.00	15.40	5.19	3.3	5.794	43.6	0.015
84641	2.17	380	0	0.068	0.30	300	13.16	0.00	0.00	13.16	5.5	3.6	6.331	43.4	0.016
84643	37	285	3.95	0.032	0.32	300	16.42	0.00	0.00	15.00	5.19	62.2	44.275	-40.4	-0.252
84647	2.4	388	0	0.021	0.30	180	15.09	2.24	0.00	17.24	4.92	3.5	7.385	52.0	0.021
84662	9.54	860	85	0.071	0.81	300	4.70	0.00	0.00	5.00	7.26	56.1	48.525	-15.6	-0.074
84672	20.44	852	85	0.051	0.81	300	5.25	0.00	0.00	5.25	7.26	120.2	98.838	-21.6	-0.025
84675	2.34	859	85	0.067	0.81	300	4.80	0.00	0.00	5.00	7.26	13.8	11.759	17.0	0.007
84680	2.33	856	85	0.064	0.81	300	4.87	0.00	0.00	5.00	7.26	13.7	11.999	14.3	0.006
84683	5.93	876	60.79	0.048	0.66	300	8.04	0.00	0.00	8.04	6.48	25.5	28.97	11.8	0.012
84685	30.98	877	13.66	0.079	0.38	300	11.24	0.89	0.00	12.13	5.67	67.1	80.57	16.7	0.087
84692	1.53	818	69.75	0.067	0.72	300	6.31	0.00	0.00	6.31	6.96	7.7	7.412	-3.2	-0.001
84695	0.91	812	63.66	0.06	0.68	300	7.17	0.00	0.00	7.17	6.71	4.2	4.428	6.0	0.001
84695	10.17	820	85	0.042	0.81	300	5.60	0.00	0.00	5.60	7.26	59.8	50.6	-18.2	-0.031
84702	2.68	801	38.89	0.068	0.53	300	9.33	0.00	0.00	9.33	6.26	8.9	10.764	16.9	0.008
84703	16.34	802	79.4	0.057	0.78	300	5.65	0.00	0.00	5.65	7.26	92.1	80.89	-13.9	-0.038
84707	4.47	815	82.42	0.083	0.79	300	4.70	0.00	0.00	5.00	7.26	25.8	22.614	-14.0	-0.011
84712	2.84	786	30.77	0.083	0.48	300	9.48	0.00	0.00	9.48	6.26	8.6	10.618	18.9	0.009
84727	1.56	784	18	0.088	0.41	150	7.39	0.00	0.00	7.39	6.71	4.3	6.866	37.8	0.010
84727	1.28	787	18	0.056	0.41	150	8.59	0.00	0.00	8.59	6.48	3.4	5.291	36.0	0.008
84727	0.77	795	18	0.025	0.41	210	13.30	0.00	0.00	13.30	5.5	1.7	2.958	41.6	0.005
84727	2.35	797	18	0.07	0.41	300	11.28	0.00	0.00	11.28	5.66	5.6	7.925	29.1	0.012
84736	3.01	746	18	0.004	0.41	300	29.28	0.00	0.00	15.00	5.19	6.4	5.151	23.7	-0.012
84736	0.9	762	18	0.082	0.41	180	8.29	0.00	0.00	8.29	6.48	2.4	3.904	39.1	0.006
84739	4.68	745	18	0.067	0.41	300	11.44	0.00	0.00	11.44	5.86	6.2	12.309	9.1	0.007
84741	14.08	747	18	0.132	0.41	300	9.13	0.69	0.00	9.82	6.26	36.0	49.101	26.8	0.063
84747	5.93	672	18	0.024	0.41	300	16.11	0.00	0.00	15.00	5.19	12.6	11.435	-9.8	-0.010
84749	5.02	671	22.6	0.059	0.44	300	11.46	0.00	0.00	11.46	5.86	12.8	17.375	26.2	0.022
84751	6.01	680	18.57	0.1	0.41	300	9.96	0.00	0.00	9.96	6.26	15.5	18.711	17.3	0.017
84757	1.3	502	18	0.023	0.41	210	13.67	0.49	0.00	14.17	5.34	2.8	3.908	27.5	0.006
84757	0.83	519	26.08	0.057	0.46	300	6.08	0.46	0.00	6.54	6.96	7.5	12.115	38.2	0.016
84758	2.52	521	21.18	0.145	0.43	150	7.79	0.91	0.00	8.71	6.48	5.0	8.521	41.0	0.013
84759	1.9	525	18	0.075	0.41	150	13.59	0.00	0.00	13.59	5.5	2.8	5.451	47.7	0.010
84769	1.27	549	18	0.04	0.41	300	11.81	0.00	0.00	11.81	5.86	42.2	36.386	-16.0	-0.058
84771	21.42	608	6.05	0.082	0.34	300	12.79	0.00	0.00	12.79	5.67	12.1	13.269	8.6	0.008
84772	5.24	632	18	0.048	0.41	300	0.00	0.00	0.00	5.00	7.26	77.3	91.845	15.9	0.095
84785	35.47	21	0	0.071	0.30	N/A	0.00	0.00	0.00	11.44	5.86	8.0	12.37	35.3	0.020
84791	3.35	879	18	0.067	0.41	300	11.44	0.00	0.00	11.44	5.86	7.3	11.9	38.9	0.017
84791	2.56	860	18	0.1	0.41	120	6.33	0.00	0.00	6.33	6.96	17.4	22.706	23.2	0.030
84791	7.77	882	15.95	0.055	0.40	300	12.44	0.00	0.00	12.44	5.67	17.4	22.706	23.2	0.030

Drainage ID	Subcatch ID	Subcatch Impervious	Subcatch Slope, ft/ft	C	Flow Length		Time of Concentration		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Ratio % Difference	Area Weighted % Difference
					Overland (<300 ft)	Pipe	Overland	Pipe						
84793	22.53	883	0.19	0.058	0.30	300	13.86	0.00	13.86	5.5	37.3	24.101	-54.8	-0.208
84795	22.54	884	0.13	0.07	0.30	300	13.03	0.00	13.03	5.5	37.3	32.134	-16.0	-0.061
84798	1.89	885	2.18	0.085	0.31	300	12.02	0.00	12.02	5.67	3.4	3.707	9.5	0.003
84800	5.29	888	0.4	0.085	0.30	300	12.18	0.00	12.18	5.67	9.1	9.45	4.0	0.004
84813	7.84	853	85	0.108	0.81	300	4.09	0.76	5.76	7.26	46.1	40.257	-14.5	-0.019
84813	3.09	846	85	0.1	0.81	300	4.20	0.00	5.00	7.26	18.2	15.813	-14.9	-0.008
84820	10.19	837	85	0.123	0.81	300	3.92	0.00	5.00	7.26	59.9	51.89	-15.5	-0.027
84823	14.9	862	80.59	0.075	0.78	300	5.04	0.00	5.04	7.26	84.8	75.94	-11.6	-0.029
84824	7.19	842	85	0.122	0.81	150	2.78	0.00	5.00	7.26	42.3	36.889	-14.6	-0.018
84839	0.58	848	85	0.034	0.81	180	4.66	0.00	5.00	7.26	3.4	2.986	-14.2	-0.001
84840	5.16	817	85	0.141	0.81	300	3.74	0.00	5.00	7.26	30.3	26.551	-14.3	-0.012
84869	3.29	781	35.54	0.031	0.51	300	12.55	0.00	12.55	5.67	9.6	11.492	16.7	0.009
84870	7.79	811	84.33	0.028	0.81	300	6.50	0.00	6.50	6.96	43.7	39.319	-11.1	-0.015
84871	4.72	816	84.99	0.057	0.81	300	5.06	0.00	5.06	7.26	27.8	24.245	-14.5	-0.012
84871	3.89	813	83.79	0.286	0.80	240	12.79	0.00	12.79	5.67	16.0	17.955	11.1	0.013
84872	6.9	767	18	0.048	0.41	300	0.00	0.00	12.45	5.67	16.2	20.361	20.6	0.024
84885	2.17	835	85	0.03	0.81	N/A	0.00	0.00	5.00	7.26	23.2	20.23	-14.7	-0.010
84892	5.37	875	42.27	0.067	0.55	300	2.28	0.00	5.00	7.26	1.1	0.979	-14.1	-0.000
84895	5.2	861	60	0.047	0.66	300	9.64	0.00	9.64	6.26	19.1	26.695	28.3	0.034
84899	4.09	872	23.66	0.095	0.44	300	8.19	0.00	8.19	6.48	22.2	24.697	24.7	-0.133
84903	1.68	855	27.16	0.093	0.46	300	9.44	0.00	9.44	6.26	4.9	7.732	37.0	0.010
84905	6.99	851	18	0.052	0.41	300	12.45	0.00	12.45	5.67	16.2	20.361	20.6	0.024
84909	3.95	833	84.88	0.067	0.81	300	4.81	0.00	4.81	7.26	23.2	20.23	-14.7	-0.010
84925	0.19	838	85	0.29	0.81	180	2.28	0.00	2.28	7.26	1.1	0.979	-14.1	-0.000
84935	7.19	669	20.86	0.104	0.43	300	13.41	0.00	13.41	5.5	7.02	56.303	24.7	-0.133
84944	31.87	571	16.78	0.043	0.40	300	11.61	0.00	11.61	5.86	4.3	7.238	40.2	0.013
84946	1.87	635	18	0.058	0.41	300	13.59	0.00	13.59	5.5	5.3	7.289	27.8	0.010
84948	5.57	631	17.5	0.065	0.41	300	11.74	0.00	11.74	5.86	5.3	7.289	27.8	0.010
84959	2.2	604	18	0.062	0.41	300	14.08	0.00	14.08	5.34	4.4	6.024	26.6	0.009
84963	2.03	567	18	0.036	0.41	300	11.94	0.00	11.94	5.67	12.1	18.517	34.4	0.030
84963	5.25	580	18	0.059	0.41	300	13.59	0.00	13.59	5.5	8.2	10.793	28.4	0.018
84972	3.66	553	18	0.04	0.41	300	14.80	0.00	14.80	5.05	7.7	10.793	28.4	0.018
84973	3.75	510	18	0.031	0.41	300	15.31	0.00	15.31	5.19	7.6	7.603	0.3	0.000
84973	3.58	516	18	0.028	0.41	300	12.07	0.00	12.07	5.67	14.6	22.535	35.3	0.037
84978	6.3	469	18.07	0.057	0.41	300	12.88	0.00	12.88	5.67	7.5	11.848	36.5	0.020
84983	3.25	465	18	0.047	0.41	300	12.97	0.00	12.97	5.67	9.4	14.043	32.8	0.023
84983	4.08	497	18	0.046	0.41	300	12.98	0.00	12.98	5.67	57.1	57.762	1.2	0.005
84987	23.79	498	20.49	0.043	0.42	300	8.37	0.00	8.37	6.48	27.1	28.509	5.0	0.005
84989	6.33	526	60	0.044	0.66	300	13.07	0.00	13.07	5.5	10.7	15.478	31.1	0.025
85009	4.75	418	18	0.045	0.41	300	12.97	0.00	12.97	5.67	9.0	11.9	24.0	0.016
85011	3.91	417	18	0.046	0.41	300	13.59	0.00	13.59	5.5	14.6	18.881	22.7	0.025
85015	6.5	414	18	0.04	0.41	300	11.38	0.00	11.38	5.5	5.6	9.327	39.6	0.017
85025	2.51	379	18	0.053	0.41	300	12.37	0.00	12.37	5.5	8.4	13.442	37.7	0.022
85025	3.47	389	18.69	0.067	0.41	300	13.59	0.00	13.59	5.19	20.5	28.165	27.1	0.044
85028	9.69	378	18	0.04	0.41	300	11.44	0.00	11.44	5.34	10.6	12.007	11.6	0.010
85035	4.87	304	18	0.067	0.41	300	13.95	0.52	14.47	5.19	2.9	4.014	26.7	0.006
85035	4.87	319	18	0.037	0.41	300	15.90	0.00	15.90	5.34	7.1	7.699	8.0	0.004
85035	1.39	338	18	0.025	0.41	300	14.80	0.00	14.80	5.34	14.8	15.704	5.7	0.004
85035	3.25	339	18	0.031	0.41	300	8.50	0.21	8.71	6.48	5.6	8.155	31.6	0.013
85042	3.71	308	52.67	0.056	0.62	300	12.22	0.00	12.22	5.67	5.8	8.155	42.8	0.024
85043	2.41	344	18	0.055	0.41	300	10.37	0.00	10.37	6.05	8.3	14.449	24.3	0.012
85045	3.35	341	18	0.09	0.41	300	13.17	0.00	13.17	5.5	6.5	8.57	14.1	0.006
85047	2.89	348	18	0.044	0.41	300	11.68	0.69	12.37	5.67	5.8	6.727	45.2	-0.000
85055	2.52	267	17.41	0.064	0.40	300	12.13	0.00	12.13	5.67	10.0	9.951	45.2	-0.000
85056	4.21	255	19.61	0.054	0.42	300	11.87	0.51	12.38	5.67	6.1	7.965	23.3	0.010
85061	2.5	210	18	0.06	0.41	300	12.01	0.73	12.73	5.67	14.2	14.222	-0.1	-0.000
85061	2.64	227	18	0.058	0.40	300	13.74	2.25	15.99	5.19	22.6	31.648	28.7	0.044
85061	6.85	242	16.71	0.04	0.41	300	12.98	1.47	14.45	5.34				
85069	9.03	203	27.96	0.035	0.47	300								

Drainage ID	Inlet	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	Flow Length		10-Year Existing Condition		P-SWMM vs Rational Method		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Rational % Difference	Area Weighted Difference %
						Overland (<300 ft)	Gutter	Pipe	Time of Concentration	Time of Concentration	Time of Concentration						
85079	3.75	212	1.46	0.076	0.31	300		12.55	0.00	0.00	5.67	6.6	10.502	37.5	0.024		
85086	1.26	272	18	0.06	0.41	300		11.87	0.00	0.00	5.86	3.0	4.785	37.0	0.008		
85086	3.26	281	18	0.09	0.41	300		10.37	0.00	0.00	5.86	8.0	12.04	33.2	0.018		
85104	6.16	77	0	0.105	0.30	300		11.39	0.00	0.00	5.86	10.8	16.516	34.4	0.036		
85107	10.39	45	0	0.051	0.30	300		14.49	0.00	0.00	5.34	16.6	17.828	6.6	0.012		
85110	13.01	68	0	0.044	0.30	300		15.22	0.00	0.00	5.19	20.3	16.858	-20.2	-0.044		
85126	3.5	634	17.89	0.09	0.41	300		10.38	0.00	0.00	6.05	8.6	12.901	33.1	0.020		
85149	8.39	461	18.01	0.036	0.41	300		14.08	0.00	0.00	5.34	18.3	23.841	23.3	0.033		
85151	4.56	511	28.13	0.05	0.47	300		11.51	0.00	0.00	5.86	12.5	16.909	25.9	0.020		
85154	1.92	495	18	0.048	0.41	300		12.79	0.00	0.00	5.67	4.4	7.437	40.3	0.013		
85154	3.24	496	18.02	0.032	0.41	300		14.64	0.00	0.00	5.34	7.1	8.973	21.3	0.012		
85157	1	490	73.25	0.032	0.74	300		7.63	0.00	0.00	7.26	19.2	16.707	-14.7	-0.008		
85159	3.26	466	84.97	0.04	0.81	300		5.70	0.00	0.00	5.34	2.3	4.519	49.0	0.009		
85160	6.36	575	17.97	0.07	0.41	300		11.28	0.00	0.00	5.86	15.2	22.489	32.4	0.035		
85162	1.46	897	16.54	0.088889	0.40	300		10.55	0.00	0.00	6.05	3.5	6.48	45.6	0.011		
85164	5.47	555	30.66	0.08	0.48	300		9.60	0.00	0.00	6.26	16.6	23.905	30.7	0.028		
85172	9.16	550	54.36	0.062	0.63	300		8.04	0.00	0.00	6.48	37.2	41.726	10.9	0.017		
85172	7.88	573	31.63	0.068	0.49	300		10.04	0.00	0.00	6.05	23.3	28.487	18.0	0.024		
85174	5.62	592	18	0.086	0.41	300		10.53	0.00	0.00	5.67	13.9	21.468	35.4	0.034		
85183	3.83	407	32.52	0.064	0.50	300	1350	12.32	0.00	0.00	5.67	10.8	15.517	30.7	0.020		
85183	2.53	463	18	0.018	0.41	300		17.74	0.00	0.00	5.19	5.4	5.499	2.6	0.001		
85184	9.68	413	20.99	0.042	0.43	300		13.03	0.00	0.00	5.5	22.7	20.452	-10.9	-0.018		
85188	1.03	493	19.77	0.032	0.42	300		14.42	0.00	0.00	5.34	2.3	4.519	49.0	0.009		
85189	9.02	411	18	0.07	0.41	300		11.28	0.00	0.00	5.86	21.6	31.897	32.4	0.049		
85193	7.51	373	17.86	0.148	0.41	300		8.80	0.00	0.00	6.48	19.8	19.628	-0.9	-0.001		
85197	4.54	331	14.01	0.293	0.38	300		7.24	0.00	0.00	6.71	11.7	17.545	33.3	0.025		
85200	4.97	329	17.96	0.105	0.41	300		9.86	0.00	0.00	6.26	12.7	18.785	32.5	0.027		
85202	7.5	310	18	0.106	0.41	300		9.82	0.00	0.00	6.26	19.2	29.302	34.6	0.044		
85202	3.43	333	16.69	0.57	0.40	300		5.67	0.00	0.00	7.26	10.0	16.427	39.3	0.023		
85202	5.02	365	17.74	0.129	0.41	300		9.22	0.00	0.00	6.26	12.8	13.005	1.8	0.002		
85206	5.79	330	18	0.034	0.41	300		14.35	0.00	0.00	5.34	12.6	14.004	9.9	0.010		
85219	3.19	372	17.2	0.198	0.40	300		8.03	0.00	0.00	6.48	8.3	10.256	18.7	0.010		
85219	1.39	377	17.27	0.207	0.40	300		7.91	0.00	0.00	6.71	3.8	5.226	28.0	0.007		
85230	6.48	404	18	0.093	0.41	300		10.26	0.00	0.00	6.05	16.0	26.144	38.8	0.042		
85238	1.53	370	19.87	0.221	0.42	300		7.56	0.00	0.00	6.71	4.3	5.769	25.4	0.007		
85247	3.58	462	18	0.033	0.41	300	60	14.49	0.28	0.00	5.34	7.8	10.745	27.4	0.017		
85251	30.1	350	56.57	0.163	0.64	300		5.66	0.00	0.00	5.66	13.97	129.637	-7.8	-0.039		
85257	4.75	427	85	0.032	0.81	300		6.14	0.00	0.00	6.14	26.8	24.38	-9.8	-0.008		
85261	4.83	460	18.9	0.05	0.41	300		12.52	0.00	0.00	6.05	11.3	20.066	43.6	0.035		
85267	6.22	282	18	0.086	0.41	300		10.70	0.17	0.00	5.67	15.4	17.997	14.7	0.015		
85275	4.85	273	18	0.032	0.41	300	60	14.64	0.00	0.00	5.34	10.6	12.128	12.9	0.011		
85276	4.27	275	18	0.053	0.41	300		12.37	0.00	0.00	5.67	9.9	15.874	37.8	0.027		
85281	0.82	264	18	0.067	0.41	285		11.15	0.00	0.00	5.86	2.0	3.16	38.0	0.005		
85282	0.86	261	18	0.057	0.41	240	120	10.80	0.42	0.00	5.86	2.1	3.074	33.1	0.005		
85284	0.44	263	18	0.1	0.41	90	60	5.48	0.16	0.00	5.64	1.3	2.015	35.3	0.003		
85286	1.86	259	18	0.067	0.41	240	270	10.24	0.87	0.00	5.86	4.4	7.62	41.6	0.013		
85296	2.9	224	18	0.077	0.41	N/A	1230	0.00	3.69	0.00	6.48	7.7	13.38	42.7	0.021		
85300	2.75	220	18	0.051	0.41	300	60	12.53	0.22	0.00	5.67	6.4	8.339	23.7	0.011		
85302	12.64	188	18	0.064	0.41	300	210	11.62	0.69	0.00	5.67	29.2	42.481	31.2	0.066		
85303	2.73	150	2.64	0.048	0.32	300		14.49	0.00	0.00	5.34	4.6	8.628	46.6	0.021		
85305	3.7	228	18	0.077	0.41	300		10.93	0.00	0.00	6.05	9.1	15.114	39.6	0.025		
85307	4.08	246	18	0.076	0.41	300		10.97	0.00	0.00	6.05	10.1	17.465	42.3	0.029		
85310	1.32	258	18	0.059	0.41	180	390	9.25	0.00	0.00	6.05	3.3	5.741	43.2	0.010		
85311	5.49	265	18	0.073	0.41	300		11.12	0.00	0.00	5.86	13.1	20.831	37.0	0.034		
85312	1.19	260	18	0.078	0.41	240	60	9.73	0.18	0.00	6.26	3.0	5.009	39.3	0.008		
85317	5.54	893	18	0.071	0.41	300		11.23	0.00	0.00	5.86	13.2	21.953	39.7	0.037		
85319	2.35	301	18	0.107	0.41	300	210	9.79	0.54	0.00	6.05	5.8	8.577	32.4	0.013		
85324	9.29	222	4.42	0.151	0.33	300		9.76	0.00	0.00	6.26	19.0	21.064	9.9	0.015		
85325	2.79	226	18	0.075	0.41	N/A	795	0.00	2.42	0.00	6.71	7.6	10.721	28.8	0.014		
85328	22.35	245	3.22	0.124	0.32	300		10.52	0.00	0.00	6.05	43.2	47.35	8.8	0.033		

Drainage ID	Acres	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	Flow Length		Time of Concentration		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Ratio % Difference	Area Weighted % Difference
						Gutter	Pipe	b > T < 15	Gutter						
85331	2.06	257	16.51	0.054	0.40	300	390	12.46	1.40	0.00	5.5	4.5	7.033	35.7	0.012
85336	9.61	323	14.42	0.214	0.39	300	300	8.01	0.00	0.00	6.48	24.1	35.238	31.7	0.051
85342	2.29	303	18	0.112	0.41	300	300	9.64	0.00	0.00	6.26	5.8	10.403	43.8	0.017
85346	3.64	185	18	0.084	0.41	300	300	10.61	0.00	0.00	6.05	9.0	14.508	38.1	0.023
85347	1.88	208	13.75	0.067	0.38	300	300	11.87	0.00	0.00	5.86	4.2	6.27	32.8	0.010
85362	9.76	171	18	0.047	0.41	300	60	12.88	0.23	0.00	5.5	21.9	35.567	38.4	0.063
85368	2.04	178	18	0.07	0.41	300	60	11.28	0.19	0.00	5.86	4.9	8.749	44.3	0.015
85372	1.56	170	18	0.218	0.41	300	300	7.72	0.00	0.00	6.71	4.3	7.57	43.6	0.011
85375	16.57	76	0	0.124	0.30	300	300	10.78	0.00	0.00	6.05	30.1	24.78	21.4	-0.060
85376	3.02	29	0	0.155	0.30	300	300	10.00	0.00	0.00	6.05	5.5	7.199	23.9	0.012
85376	41.89	43	0	0.15	0.30	300	300	10.11	0.00	0.00	6.05	76.0	92.486	17.8	0.126
85381	2.37	124	16.49	0.113	0.40	300	390	9.74	0.97	0.00	6.05	5.7	9.711	41.1	0.016
85381	6.85	143	18	0.065	0.41	300	315	11.56	1.03	0.00	5.67	15.8	22.698	30.2	0.035
85386	3.11	108	11.05	0.133	0.37	300	300	9.65	0.00	0.00	6.26	7.1	12.904	44.7	0.023
85386	1.07	113	18	0.106	0.41	225	300	8.51	0.00	0.00	6.48	2.8	4.313	34.4	0.006
85386	1.98	119	16.54	0.114	0.40	300	300	9.71	0.00	0.00	6.26	4.9	7.669	35.5	0.012
85388	3.29	123	18	0.063	0.41	300	300	11.68	0.00	0.00	5.86	7.9	10.412	24.5	0.014
85388	0.78	142	18	0.021	0.41	300	300	16.85	0.00	0.00	5.19	1.7	2.482	33.5	0.004
85389	4.34	139	18	0.062	0.41	270	300	11.14	1.00	0.00	5.67	10.0	16.697	39.9	0.029
85391	1.24	151	18	0.037	0.41	210	90	11.67	0.39	0.00	5.67	2.9	4.506	36.3	0.008
85394	2.09	122	18	0.05	0.41	210	90	10.56	0.34	0.05	6.05	5.2	7.528	31.5	0.011
85397	3.51	140	18	0.143	0.41	240	300	7.95	0.00	0.00	6.71	9.6	16.016	40.0	0.024
85405	1.49	110	12.94	0.074	0.38	300	240	11.56	0.74	0.00	5.67	3.2	5.877	45.7	0.011
85406	1.75	133	18	0.05	0.41	210	450	10.56	1.68	0.00	6.26	4.0	7.328	44.8	0.013
85407	16.39	88	8.92	0.18	0.35	300	720	8.88	1.41	0.00	6.05	35.1	51.535	32.0	0.088
85412	6.38	147	10.81	0.091	0.36	300	270	10.98	0.75	0.00	5.86	13.6	17.785	23.3	0.025
85416	6.72	138	18	0.209	0.41	300	300	7.83	0.00	0.17	6.71	18.4	27.482	33.1	0.037
85417	0.64	157	18	0.22	0.41	210	30	6.44	0.05	0.00	6.96	1.8	3.006	39.5	0.004
85427	3.79	162	18	0.19	0.41	300	150	8.09	0.00	0.00	6.48	10.0	17.683	43.3	0.028
85437	2.4	199	8.23	0.18	0.35	300	300	8.93	0.29	0.00	6.26	5.2	9.283	43.5	0.018
85440	2.85	181	18	0.168	0.41	300	300	8.25	0.00	0.07	6.48	7.5	11.829	36.3	0.017
85442	3.04	182	18	0.179	0.41	300	300	10.19	0.00	0.00	6.05	8.0	12.715	36.8	0.019
85443	21.79	202	5.55	0.129	0.33	300	420	8.32	1.00	0.00	6.05	43.9	62.706	29.9	0.110
85463	9.56	395	30.7	0.123	0.48	300	300	6.19	0.00	0.00	6.26	29.0	35.98	18.6	0.023
85466	9.49	426	80.83	0.04	0.78	300	300	13.27	0.00	0.00	5.86	51.8	47.348	19.3	0.049
85466	3.82	464	18	0.036	0.41	300	600	14.08	0.00	0.00	5.34	8.3	14.593	20.0	0.013
85470	4.18	430	18	0.043	0.41	300	300	13.27	0.00	0.00	5.5	9.4	14.593	35.7	0.025
85470	5.76	480	28.01	0.038	0.47	300	300	12.63	0.00	0.00	5.67	15.3	20.065	23.8	0.023
85475	7.36	420	21.09	0.033	0.43	300	300	14.10	1.38	0.00	5.19	16.3	20.007	18.6	0.023
85510	8.83	641	18	0.061	0.41	300	300	11.81	0.00	0.00	5.86	21.1	26.162	16.3	0.029
85511	17.78	658	18.42	0.074	0.41	300	600	11.03	1.84	0.00	5.67	41.4	49.471	16.3	0.049
85514	7.17	628	18	0.07	0.41	300	300	11.28	0.00	0.00	5.86	17.1	24.533	30.1	0.036
85515	13.08	629	20.67	0.076	0.42	300	300	10.72	0.00	0.00	6.05	33.6	42.557	21.2	0.047
85541	16.12	710	20.45	0.08	0.42	300	60	10.56	0.18	0.00	6.05	41.2	50.971	19.1	0.052
85543	10.74	713	20.56	0.071	0.42	300	300	10.98	0.00	0.00	6.05	21.5	30.651	10.3	0.019
85550	7.95	728	18.75	0.06	0.41	300	510	11.80	0.00	0.00	5.86	19.2	20.949	8.3	0.011
85554	10.05	695	54.31	0.051	0.63	300	300	8.59	1.88	0.00	6.05	38.1	42.032	9.5	0.016
85564	5.33	755	21.86	0.033	0.43	300	300	14.01	0.00	0.00	5.34	12.3	18.191	32.5	0.029
85565	6.66	766	18	0.093	0.41	300	300	10.26	0.00	0.00	6.05	16.4	22.66	27.5	0.031
85575	1.58	792	39.05	0.08	0.53	300	300	8.82	0.00	0.00	6.48	5.5	6.59	17.0	0.005
85575	1.01	798	73.76	0.055	0.74	300	300	6.31	0.00	0.00	6.96	5.2	5.057	-3.2	-0.001
85586	4.38	775	21.21	0.095	0.43	300	300	9.90	0.00	0.00	6.26	11.7	14.435	18.8	0.014
85590	3.89	768	42.18	0.113	0.55	300	300	7.60	0.00	0.00	6.71	14.4	16.148	10.6	0.007
85598	7.85	769	32.18	0.108	0.49	300	300	8.56	0.00	0.00	6.48	25.1	30.452	17.6	0.023
85607	4.22	770	41.68	0.087	0.55	300	300	8.34	0.00	0.00	6.48	15.0	18.92	20.5	0.015
85610	7.81	804	59.94	0.046	0.66	300	300	8.26	0.00	0.00	6.48	33.4	33.482	0.3	0.000
85642	5.45	614	30.68	0.059	0.48	300	300	10.63	0.00	0.00	6.05	16.0	21.543	25.9	0.024
85645	5.28	627	18.02	0.081	0.41	300	300	10.74	0.00	0.00	6.05	13.0	19.18	32.0	0.028
85659	10.56	548	22.87	0.043	0.44	300	300	12.71	0.00	0.00	5.67	26.2	29.298	10.6	0.019
85663	10.13	547	45.35	0.02	0.57	300	300	13.06	0.00	0.00	5.5	31.9	37.779	15.6	0.027

Drainage ID	Subcatch ID	Subcatch Impervious	Subcatch Slope, ft/ft	C	10-Year Existing Condition Flow Length		7P-SWMM vs. Rational Method Time of Concentration		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Ratio % Difference	Area Weighted Difference
					Overland (<300 ft)	Pipe	Overland	Pipe						
85668	5.94	507	0.05	0.41	300	90	12.61	0.34	12.95	5.67	13.7	16.749	17.9	0.018
85669	4.96	508	24.48	0.45	300	300	12.83	0.00	12.83	5.67	12.6	14.768	14.9	0.012
85672	5.14	504	61.78	0.03	300	300	9.28	0.00	9.28	6.26	21.6	23.019	6.3	0.005
85695	14.94	586	49.22	0.60	300	300	7.87	0.00	7.87	6.71	59.7	68.033	12.3	0.031
85701	3.46	783	18.3	0.087	300	300	10.46	0.00	10.46	6.05	8.6	10.619	19.2	0.011
85724	3.2	789	60	0.107	300	300	6.23	0.00	6.23	6.96	14.7	15.208	3.3	0.002
85734	5.15	763	30.84	0.087	300	300	9.32	0.00	9.32	6.26	15.6	21.671	27.8	0.024
85737	4.01	799	58.86	0.05	300	300	8.15	0.00	8.15	6.48	17.0	18.454	8.0	0.005
85739	4.75	774	18	0.067	300	300	11.44	0.00	11.44	5.86	11.4	17.528	35.2	0.028
85739	5.97	806	49.89	0.034	300	300	10.38	0.00	10.38	6.05	21.6	22.501	3.8	0.004
85743	5.74	686	32.06	0.063	300	300	10.26	0.00	10.26	6.05	17.1	19.605	12.8	0.012
85746	16.98	679	58.34	0.04	300	300	8.84	0.00	8.84	6.05	71.5	69.474	-3.0	-0.008
85760	9.53	730	19.23	0.076	300	300	10.86	0.00	10.86	6.05	23.9	29.355	18.4	0.030
85768	4.62	779	29.99	0.08	300	330	9.67	0.97	10.64	6.05	13.4	17.909	25.1	0.020
85774	3.25	794	48.42	0.096	300	300	7.47	0.00	7.47	6.71	12.9	15.392	16.3	0.009
85782	4.76	777	51.9	0.08	300	300	7.62	0.00	7.62	6.71	19.5	20.816	6.2	0.005
85792	6.49	660	37.18	0.059	300	180	9.95	0.62	10.57	6.05	20.5	23.59	12.9	0.014
85792	6.79	661	33.7	0.076	300	300	9.48	0.00	9.48	6.26	21.3	26.24	18.7	0.021
85798	6.32	670	53.99	0.043	300	300	9.13	0.00	9.13	6.26	27.1	28.157	12.3	0.013
85798	6.56	691	60	0.032	300	300	9.31	0.00	9.31	6.26	27.1	31.136	13.0	0.014
85802	2.54	712	60	0.051	300	300	7.97	0.00	7.97	6.71	11.2	11.942	5.8	0.002
85805	10.04	707	69.65	0.063	300	300	6.45	0.00	6.45	6.96	50.2	49.592	-1.2	-0.002
85820	1.42	865	18.5	0.16	N/A	690	0.00	1.44	6.44	6.96	4.1	6.333	35.9	0.009
85844	4.27	829	60	0.06	300	300	7.55	0.00	7.55	6.71	18.9	20.478	7.7	0.006
85848	2.95	827	60	0.029	300	300	9.62	0.00	9.62	6.26	12.2	13.459	9.4	0.005
85853	1.38	822	60	0.02	150	150	7.70	0.00	7.70	6.71	6.1	6.814	10.3	0.002
85870	4.18	854	22.99	0.119	300	300	9.04	0.00	9.04	6.26	11.5	14.01	18.2	0.013
85870	6.3	863	21.86	0.1	300	300	9.68	0.00	9.68	6.26	17.0	20.461	16.9	0.018
85870	3.29	864	18	0.113	300	300	9.61	0.00	9.61	6.26	8.4	12.979	35.3	0.020
85870	0.83	866	26.48	0.15	240	240	7.25	0.00	7.25	6.71	2.6	3.794	32.6	0.005
85873	4.36	847	31.31	0.103	300	300	8.77	0.00	8.77	6.48	13.8	15.265	9.7	0.007
85873	6.57	849	18	0.113	300	300	9.61	0.00	9.61	6.26	16.8	21.507	22.0	0.024
85876	2.22	841	50.05	0.123	300	300	6.75	0.00	6.75	6.96	9.3	9.908	6.4	0.002
85876	2.55	834	60	0.11	300	300	6.17	0.00	6.17	6.96	11.7	11.802	0.7	0.000
85884	4.28	805	46.03	0.025	300	300	12.03	0.00	12.03	5.67	14.0	16.823	16.9	0.012
85890	3.8	807	27.38	0.018	300	300	16.29	0.00	15.00	5.19	9.2	12.175	24.8	0.016
86214	207.48	6	0	0.1	N/A	N/A	0.00	0.00	5.00	7.26	451.9	279.196	-61.9	-2.163
86220	0.9	42	0	0.044	300	300	15.22	0.00	15.00	5.19	1.4	1.171	-19.7	-0.003
86224	4.03	24	0	0.086	300	300	12.17	0.00	12.81	5.67	6.9	13.197	48.1	0.033
86224	2.65	28	0	0.167	300	300	9.76	0.00	9.76	6.26	5.0	8.241	39.6	0.018
86226	8.71	23	0	0.058	300	300	13.88	0.00	14.28	5.34	14.0	13.801	-1.1	-0.002
92020	38.65	73	0.36	0.049	300	300	14.64	0.00	14.64	5.34	62.4	40.367	-54.5	-3.355
92021	1.11	209	18	0.041	300	300	13.48	0.00	13.48	5.5	2.5	2.725	8.6	0.002
92025	4.5	180	6.55	0.109	300	300	10.70	0.00	10.70	6.05	9.2	13.666	32.4	0.025
92035	3.78	232	18	0.096	270	270	9.63	0.00	9.63	6.26	9.7	15.714	38.6	0.025
92048	30.59	179	0.1	0.054	300	210	14.21	0.75	14.96	5.34	49.1	34.893	-40.7	-2.210
92061	36.71	277	0	0.06	300	300	13.73	0.00	13.73	5.5	60.6	61.514	1.5	0.009
92079	3.15	376	18	0.182	300	300	8.20	0.00	8.20	6.48	8.3	11.743	29.1	0.015
92080	16	356	10.47	0.02	300	300	18.24	0.00	16.77	5.05	29.3	31.276	6.3	0.017
92112	10.06	419	32.94	0.08	300	300	9.39	0.00	9.39	6.26	31.3	35.679	12.2	0.021
92114	28.02	398	3.5	0.048	300	600	14.40	2.28	16.88	5.05	45.4	42.459	-7.0	-0.033
92135	23.31	441	24.9	0.054	300	300	17.73	4.96	11.56	5.86	61.4	61.078	-0.5	-0.002
92136	51.14	371	3.02	0.026	300	960	19.96	0.00	19.96	4.69	76.3	53.456	-42.7	-0.368
92152	1.78	512	44.23	0.071	N/A	1020	0.00	3.19	8.19	6.48	6.5	8.704	25.1	0.008
92152	3.15	515	58.06	0.034	300	300	9.36	0.00	9.36	6.26	12.8	14.587	12.4	0.007
92152	2.41	517	60	0.01	300	300	13.72	0.00	13.72	5.5	8.7	10.215	14.4	0.006
92156	13.88	509	33	0.049	300	300	11.05	0.00	11.05	5.86	40.5	46.822	13.5	0.032
92169	12.46	531	19.37	0.057	300	300	11.93	0.00	11.93	5.86	30.4	36.888	17.6	0.037
92173	11.08	557	42.76	0.037	300	300	10.95	0.00	10.95	6.05	37.3	34.967	-6.7	-0.013
92178	29.18	599	17.76	0.067	300	300	11.47	0.00	11.47	5.86	69.5	73.089	4.9	0.024

Drainage ID	Inches	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	10-Year Existing Condition		Flow Length		Time of Concentration		Tc, min	intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Ratio, % Difference	Area Weighted Difference
						Overland (<300 ft)	Underland (>300 ft)	Gutter	Pipe	Gutter	Pipe						
92179	2.84	589	18	0.04	0.41	300	300	13.59	0.00	0.00	13.59	5.5	6.4	10.077	36.8	0.018	
92189	29.94	600	17.56	0.098	0.41	300	840	10.12	2.24	0.00	12.36	5.67	68.8	93.383	26.3	0.133	
92198	6.2	607	0.16	0.073	0.30	300	300	12.84	0.93	0.00	13.77	5.5	10.3	16.789	38.9	0.041	
92219	17.93	702	19.41	0.108	0.42	300	300	9.64	0.76	0.00	10.40	6.05	45.2	61.276	26.3	0.079	
92248	26.47	828	35.89	0.11	0.52	300	300	8.20	0.75	0.00	8.95	6.48	88.4	87.508	-1.0	-0.005	
92250	29.94	809	35.04	0.078	0.51	300	300	9.27	0.00	0.00	9.27	6.26	95.6	87.149	-9.7	-0.049	
92253	2.18	832	71.23	0.088	0.73	300	300	5.63	0.00	0.00	5.63	7.26	11.5	10.983	-4.8	-0.002	
92260	3.37	858	72.07	0.064	0.73	300	300	6.17	0.00	0.00	6.17	6.96	34.7	33.78	-2.6	-0.003	
92264	3.64	868	17.95	0.09	0.41	300	300	10.38	0.00	0.00	10.38	6.05	8.3	10.329	19.5	0.011	
92265	2.04	873	60	0.044	0.66	300	300	9.30	0.00	0.00	9.30	6.26	9.3	13.544	31.4	0.019	
92267	7.5	869	18.08	0.093	0.41	300	300	8.37	0.00	0.00	8.37	6.48	8.7	9.028	3.4	0.001	
92267	3.69	870	18	0.117	0.41	300	300	10.25	0.00	0.00	10.25	6.05	18.5	29.082	36.3	0.046	
92269	39.72	836	85	0.053	0.81	300	300	9.50	0.00	0.00	9.50	6.26	9.4	13.85	32.0	0.020	
92278	32.31	889	6.63	0.038	0.34	300	300	15.19	0.00	0.00	15.19	7.26	233.6	198.869	-17.5	-0.117	
92281	1.5	891	0	0.095	0.30	300	210	11.78	0.00	0.00	11.78	5.19	57.0	44.875	-21.0	-0.147	
92288	7.66	637	18	0.062	0.41	300	300	11.46	0.00	0.00	11.46	5.86	2.6	3.243	18.7	0.005	
92289	21.49	633	23.53	0.056	0.44	300	600	11.74	0.00	0.00	11.74	5.86	18.3	27.29	32.9	0.042	
92289	3.5	688	24.86	0.04	0.45	300	450	11.57	2.11	0.00	13.68	5.5	52.1	72.636	28.2	0.102	
92289	4.88	697	21.17	0.045	0.43	300	300	12.71	1.88	0.00	14.66	5.34	8.4	11.582	27.5	0.016	
92293	25.59	780	28.49	0.04	0.47	300	300	12.35	0.00	0.00	12.35	5.67	68.3	82.301	17.0	0.073	
92317	4.14	850	10.03	0.117	0.36	300	300	10.16	0.00	0.00	10.16	6.05	9.0	12.043	25.1	0.018	
92318	50.3	803	49.5	0.048	0.60	300	300	9.30	0.00	0.00	9.30	6.26	188.0	182.491	-3.0	-0.026	
92320	20.29	840	59.55	0.068	0.66	300	300	7.29	0.00	0.00	7.29	6.71	89.5	94.36	5.2	0.018	
92322	8.13	843	10.8	0.08	0.36	300	300	11.46	0.00	0.00	11.46	5.86	17.4	20.417	14.9	0.020	
92323	32.67	732	30.24	0.044	0.48	300	540	11.77	2.15	0.00	13.91	5.86	86.5	88.845	2.6	0.014	
92324	17.52	731	18.79	0.064	0.41	300	300	11.54	0.00	0.00	11.54	5.86	42.4	48.014	11.7	0.035	
92326	3.44	727	38.39	0.088	0.53	300	300	8.60	0.00	0.00	8.60	6.48	11.8	14.857	20.4	0.012	
92329	8.64	662	10.89	0.072	0.37	300	600	11.86	1.86	0.00	13.73	5.5	17.4	32.162	46.0	0.067	
92332	12.93	643	24.13	0.034	0.44	300	1110	13.59	5.02	0.30	18.90	4.8	27.6	34.889	20.8	0.045	
92334	8.12	551	18	0.033	0.41	300	300	14.49	0.00	0.00	14.49	5.34	17.7	21.718	18.5	0.025	
92334	2.47	565	18	0.067	0.41	300	300	11.44	0.00	0.00	11.44	5.86	5.9	10.437	43.4	0.018	
92334	5.24	576	18	0.068	0.41	300	300	11.39	0.00	0.00	11.39	5.86	12.5	16.974	26.2	0.023	
92338	6.31	596	17.66	0.073	0.41	300	300	11.15	0.00	0.00	11.15	5.86	15.0	19.171	21.7	0.023	
92339	10.79	615	37.44	0.087	0.52	300	300	8.72	0.00	0.00	8.72	6.48	36.7	48.007	23.6	0.043	
92340	6.68	545	38.25	0.044	0.53	300	300	10.85	0.00	0.00	10.85	6.05	21.4	22.998	7.0	0.008	
92344	3.36	449	49.6	0.056	0.60	300	300	8.82	0.00	0.00	8.82	6.48	13.0	15.891	18.1	0.010	
92347	10.42	361	50.86	0.136	0.61	300	300	6.46	0.00	0.00	6.46	6.96	43.9	39.627	-10.8	-0.019	
92347	15.81	363	59.79	0.138	0.66	300	300	5.74	0.00	0.00	5.74	7.26	75.6	66.895	-13.0	-0.035	
92349	3.26	297	18	0.044	0.41	300	300	13.17	0.00	0.45	13.62	5.5	7.3	10.484	30.2	0.017	
92350	6.51	302	17.44	0.198	0.40	300	300	8.01	0.56	0.00	8.58	6.48	17.1	21.553	20.8	0.023	
92351	3.81	269	18	0.06	0.41	300	300	11.87	0.00	0.00	11.87	5.86	9.1	13.109	30.5	0.020	
92352	6.35	298	15.71	0.191	0.39	300	300	9.56	0.00	0.00	9.56	6.26	44.5	53.458	16.7	0.062	
92353	4.68	229	18	0.056	0.41	300	60	8.23	0.11	0.00	8.35	6.48	16.2	22.073	26.5	0.028	
92356	2.32	237	18	0.04	0.41	300	300	12.15	1.06	0.00	13.21	5.5	10.5	18.527	43.3	0.034	
92357	6.62	221	12.72	0.125	0.38	300	285	9.72	0.50	0.00	10.22	6.05	5.2	8.229	36.7	0.014	
92358	3.91	205	10.17	0.064	0.36	300	300	12.41	0.00	0.00	12.41	5.67	8.0	8.425	50	0.003	
92361	12.51	158	5.75	0.083	0.33	300	480	11.79	1.39	0.00	13.18	5.5	23.0	31.35	26.6	0.056	
92371	1.31	102	0	0.2	0.30	240	240	8.22	0.00	0.00	8.22	6.48	2.5	6.179	58.8	0.013	
92373	10.88	64	0	0.135	0.30	300	300	10.47	0.00	0.00	10.47	6.05	19.7	25.788	23.4	0.043	
92374	4.06	78	0	0.178	0.30	300	300	9.55	0.00	0.00	9.55	6.26	7.6	12.54	39.2	0.027	
92375	0.51	105	0	0.286	0.30	60	60	3.65	0.00	0.00	5.00	7.26	1.1	2.432	54.3	0.005	
92376	3.78	90	2.01	0.227	0.31	300	300	8.68	0.00	0.00	8.68	6.48	7.6	13.404	43.0	0.027	
92377	0.42	117	3.31	0.2	0.32	60	60	4.01	0.00	0.00	5.00	7.26	1.0	2.016	51.6	0.004	
92378	2.01	104	0.37	0.2	0.30	300	300	9.16	0.00	0.00	9.16	6.26	3.8	6.694	43.2	0.015	
92379	0.32	129	8.85	0.171	0.35	135	135	6.06	0.00	0.00	6.06	6.96	0.8	1.541	49.0	0.003	
92380	1.77	106	0.12	0.2	0.30	300	300	9.18	0.00	0.00	9.18	6.26	3.3	5.383	38.1	0.011	
92382	2.13	114	0.36	0.093	0.30	300	300	11.83	0.00	0.17	11.99	5.86	3.8	6.34	40.5	0.015	
92384	2.08	130	0	0.064	0.30	300	300	13.43	0.00	0.00	13.43	5.5	3.4	5.089	32.6	0.011	

Drainage ID	Ares	Subcatch ID	Percent Impervious	Subcatch Slope, flt/ft	C	Flow Length		Time of Concentration		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Rational, % Difference	Area Weighted Difference
						Gutter	Pipe	rland	Pipe						
92385	0.65	131	0	0.057	0.30	300	300	13.96	0.00	13.96	5.5	1.1	2.109	49.1	0.005
92388	6.69	107	0	0.143	0.30	300	300	10.28	0.00	10.28	6.05	12.1	14.023	13.4	0.015
92389	2.86	121	0	0.034	0.30	300	300	16.59	0.00	15.00	5.19	4.5	7.178	38.0	0.018
92389	0.94	144	0	0.016	0.30	270	300	20.23	0.00	15.00	5.19	1.5	2.303	36.4	0.006
92391	0.94	152	0	0.047	0.30	300	300	14.89	0.00	14.89	5.34	1.5	2.821	46.6	0.007
92401	0.86	87	0	0.19	0.30	300	300	9.35	0.00	9.35	6.26	1.6	3.787	57.4	0.008
92402	2.28	58	0	0.025	0.30	300	300	18.38	0.00	15.00	5.19	3.5	4.892	27.4	0.011
92402	2.74	59	0	0.03	0.30	300	300	17.29	0.00	15.00	5.19	4.3	4.707	9.4	0.004
92402	0.6	84	0	0.333	0.30	75	300	3.88	0.00	5.00	7.26	1.3	2.891	54.8	0.006
92405	2.63	65	0	0.036	0.30	300	300	16.27	0.00	15.00	5.19	4.1	5.491	25.4	0.011
92406	2.01	61	0	0.036	0.30	300	300	16.27	0.00	15.00	5.19	3.1	4.512	30.6	0.010
92408	1.56	57	0	0.03	0.30	300	300	17.29	0.00	15.00	5.19	2.4	3.56	31.8	0.008
92416	51.02	8	0	0.156	0.30	300	300	9.98	1.58	11.56	5.86	89.7	85.477	-4.9	-0.042
92424	28.66	13	0	0.214	0.30	300	300	8.98	1.89	10.88	6.05	52.0	66.301	21.5	0.104
92425	1.81	886	0	0.065	0.30	300	300	13.36	0.00	13.36	5.5	3.0	3.04	1.8	0.001
92426	4.98	887	0.04	0.104	0.30	300	300	11.42	0.00	11.42	5.86	8.8	11.315	22.6	0.019
92427	1.84	890	0	0.097	0.30	300	300	11.69	0.00	11.69	5.86	3.2	3.836	15.7	0.005
92428	1007.43	1	0	0.09	0.30	N/A	300	0.00	0.00	5.00	7.26	2194.2	980.563	-123.8	-21.013
92429	22.68	81	0	0.133	0.30	300	720	10.53	1.65	12.17	5.67	38.6	61.896	37.7	0.144
92430	59.84	19	0	0.118	0.30	300	390	10.96	0.95	11.90	5.86	105.2	68.585	-53.4	-0.538
92432	108.46	9	0	0.063	0.30	300	900	13.50	2.99	16.49	5.05	164.3	56.214	-192.3	-3.515
92434	4.97	146	6.42	0.048	0.34	300	600	14.07	0.00	14.07	5.34	9.0	12.518	28.2	0.024
92435	10.9	120	0	0.165	0.30	300	300	9.80	1.23	11.03	5.86	19.2	33.943	43.5	0.080
92436	2.98	145	0	0.03	0.30	300	300	17.29	0.00	15.00	5.19	4.6	6.612	29.8	0.015
92438	5.71	135	0	0.062	0.30	300	300	15.71	0.00	15.00	5.19	8.9	11.233	20.9	0.020
92441	10.34	125	0	0.058	0.30	300	300	13.58	0.00	13.58	5.34	16.6	26.724	38.0	0.066
92443	4.67	128	0	0.027	0.41	300	300	13.88	0.00	14.88	5.5	7.7	7.332	-5.1	-0.004
92445	3.86	189	18	0.027	0.41	300	300	15.49	0.00	15.00	5.19	8.2	10.778	24.2	0.016
92446	8.31	169	4.3	0.19	0.33	300	300	9.05	0.00	9.05	6.26	16.9	30.693	44.8	0.063
92446	1.73	204	18	0.01	0.41	225	210	18.68	1.75	16.75	5.05	3.6	5.505	35.2	0.010
92447	10.31	206	4.96	0.195	0.33	300	180	8.92	0.34	9.26	6.26	21.3	38.47	44.7	0.078
92449	12.21	230	5.98	0.17	0.34	300	450	9.26	0.91	10.17	6.05	24.8	40.251	38.4	0.079
92455	0.53	276	0	0.13	0.30	180	60	8.22	0.14	8.36	6.48	1.0	2.219	53.6	0.005
92456	13.9	238	16.64	0.098	0.40	300	600	10.20	1.60	11.80	5.86	32.6	42.843	24.0	0.056
92456	6.83	307	51.08	0.08	0.61	300	300	7.69	0.00	7.69	6.71	27.8	29.144	4.6	0.005
92458	1.71	266	0	0.133	0.30	300	300	10.53	0.00	10.53	6.05	3.1	6.401	51.5	0.015
92459	18.15	280	5.01	0.073	0.33	300	300	12.37	0.93	13.30	5.5	32.9	36.741	10.3	0.032
92459	4.14	311	41.8	0.044	0.55	300	60	10.45	0.24	10.69	6.05	13.8	13.748	-0.3	-0.000
92459	1.4	336	16.13	0.025	0.40	300	300	16.15	0.00	15.00	5.19	2.9	4.306	33.0	0.008
92459	0.98	340	18	0.024	0.41	300	660	16.11	3.55	18.55	4.8	1.9	3.388	43.4	0.007
92459	1.87	342	18	0.032	0.41	300	300	14.64	0.00	14.64	5.34	4.1	6.802	40.1	0.013
92463	0.91	217	18	0.024	0.30	180	300	12.48	0.00	12.48	5.67	2.1	3.563	40.9	0.006
92465	1.5	173	0	0.056	0.30	300	225	14.05	0.00	14.05	5.34	2.4	4.095	41.3	0.010
92465	1.15	186	0	0.107	0.30	225	300	9.80	0.00	9.80	6.26	2.2	4.239	49.1	0.010
92465	1.05	196	0	0.056	0.30	300	300	14.05	0.00	14.05	5.34	1.7	4.03	58.3	0.010
92467	4.18	168	0	0.131	0.30	300	300	10.58	0.00	10.58	6.05	7.6	14.737	48.5	0.034
92469	25.73	165	0	0.058	0.30	300	300	13.88	0.00	13.88	5.5	42.5	54.836	22.6	0.098
92470	13.07	136	0	0.078	0.30	300	300	12.58	0.00	12.58	5.67	22.2	35.647	37.6	0.083
92471	1.62	166	0	0.131	0.30	300	300	10.58	0.00	10.58	6.05	2.9	5.705	48.5	0.013
92472	1.47	184	0	0.027	0.30	300	300	17.91	0.00	15.00	5.19	2.3	2.66	14.0	0.003
92472	1.51	187	0	0.063	0.30	300	300	13.50	0.00	13.50	5.5	2.5	4.506	44.7	0.011
92474	25.07	118	0	0.078	0.30	N/A	300	0.00	0.00	5.00	7.26	54.6	66.365	20.1	0.085
92475	1.91	399	18	0.082	0.41	300	300	10.70	0.00	10.70	6.05	4.7	6.995	32.6	0.010
92477	6.96	347	18	0.036	0.41	300	300	14.08	0.00	14.08	5.34	15.2	18.985	20.1	0.024
92479	31.53	394	8.81	0.059	0.35	300	900	12.89	3.09	15.98	5.19	57.7	70.198	17.7	0.094
92479	1.73	459	18	0.088	0.41	N/A	540	0.00	1.52	6.52	6.96	4.9	7.847	37.4	0.011
92480	1.18	492	18	0.1	0.41	210	1500	8.38	0.00	8.38	6.48	3.1	5.617	44.5	0.009
92486	69.12	268	0.23	0.11	0.30	300	1500	11.20	3.77	14.96	5.34	111.2	149.62	25.7	0.299
92487	16.85	415	23.79	0.062	0.44	300	570	11.15	1.91	13.06	5.5	41.0	45.655	10.1	0.029
92490	5.74	396	0	0.09	0.30	300	300	11.99	0.00	11.99	5.86	10.1	11.732	14.0	0.014

Drainage ID	Acre	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	Flow Length		Time of Concentration		Tc, min	intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSW - Ratio	Area Weighted Difference
						Overland (<300 ft)	Pipe	Gutter	Pipe						
92492	23.97	397	9.53	0.074	0.36	300		11.88	0.00	11.88	5.86	50.2	45.647	-9.9	-0.040
92495	40.1	896	0.08	0.08	0.30	300	90	12.46	0.00	12.73	5.67	68.3	85.028	19.7	0.133
92496	29.16	520	22.2	0.04	0.43	300	270	13.10	0.00	14.22	5.34	67.5	86.076	22.3	0.109
92497	5.01	655	18	0.119	0.41	300		9.45	0.00	9.45	6.26	12.8	19.019	32.7	0.028
92498	5.71	638	18	0.105	0.41	300		9.85	0.00	9.85	6.26	14.6	18.15	19.6	0.019
92500	6.13	605	13.92	0.135	0.38	270	690	8.90	0.00	10.46	6.05	14.2	23.313	39.0	0.040
92501	4.21	602	16.93	0.213	0.40	300	390	7.86	0.00	8.56	6.48	11.0	18.481	40.7	0.029
92502	25.66	552	40.68	0.036	0.54	300		11.31	0.00	11.31	5.86	81.8	81.84	0.0	0.000
92504	18.36	622	10	0.043	0.36	300		14.19	0.00	14.19	5.34	35.3	34.15	-3.4	-0.010
92505	45.33	582	16.92	0.035	0.40	300		14.34	0.00	14.34	5.34	97.2	101.644	4.4	0.033
92508	10.46	673	19.29	0.08	0.42	300	180	10.67	0.00	11.20	5.86	25.5	35.123	27.4	0.048
92508	1.24	726	18	0.069	0.41	300	240	11.33	0.00	12.09	5.67	2.9	5.265	45.5	0.010
92509	18.78	647	19.97	0.069	0.42	300		11.14	0.00	11.14	5.86	46.2	50.939	9.3	0.029
92510	3.56	711	18	0.062	0.41	300	210	11.74	0.00	12.45	5.67	8.2	11.853	30.5	0.018
92511	22.87	681	18	0.07	0.41	300		11.28	0.00	11.28	5.86	54.7	58.81	7.0	0.027
92511	3.4	717	18	0.073	0.41	300		11.12	0.00	11.12	5.86	8.1	13.052	37.7	0.022
92512	1.71	733	18	0.05	0.41	300		12.62	0.00	12.62	5.67	4.0	6.791	41.7	0.012
92514	17.1	734	20.83	0.098	0.42	300	180	9.83	0.00	10.31	6.05	44.0	48.835	10.0	0.029
92514	20.98	744	18.75	0.061	0.41	300		11.73	0.00	11.73	5.86	50.7	53.848	5.8	0.021
92515	6.76	759	18	0.097	0.41	300		10.12	0.00	10.92	6.05	16.7	25.641	34.9	0.040
92516	3.69	796	43.36	0.093	0.56	300	300	8.00	0.00	8.82	6.05	13.4	16.012	16.3	0.010
92518	6.99	814	84.36	0.063	0.81	300	300	4.96	0.00	5.00	7.26	38.6	33.175	-16.3	-0.018
92521	8.17	652	18	0.074	0.41	300		11.07	0.00	11.07	5.86	19.5	29.771	34.4	0.047
92521	28.55	675	17.94	0.093	0.41	300		10.26	0.00	10.26	6.05	70.4	90.956	22.6	0.109
92525	31.8	687	19.85	0.075	0.42	300		10.84	0.00	10.84	6.05	80.6	95.836	15.9	0.085
92527	20.48	761	23.57	0.074	0.44	300		10.54	0.00	10.54	6.05	54.7	56.757	3.6	0.013
92530	16.33	895	85	0.025	0.81	300		6.66	0.00	6.66	6.96	92.1	82.066	-12.2	-0.034
92531	0.85	845	85	0.147	0.81	300		3.69	0.00	5.00	7.26	5.0	4.376	-14.2	-0.002
92537	5.43	810	84.52	0.033	0.81	300		6.13	0.00	6.13	6.96	30.5	26.725	-14.1	-0.013
92539	4	819	85	0.015	0.81	300		7.90	0.00	7.90	6.71	21.7	20.161	-7.8	-0.005
92541	8.38	857	75.99	0.032	0.76	300		7.28	0.00	7.28	6.71	42.5	40.912	-3.9	-0.006
92543	28.69	839	72.98	0.077	0.74	300	300	5.72	0.00	6.62	6.96	147.3	139.551	-5.6	-0.027
92554	36.1	650	4.56	0.064	0.33	300		12.97	0.00	12.97	5.67	70.7	71.132	0.6	0.004
92555	18.11	657	2.94	0.066	0.32	300		13.00	0.00	13.00	5.5	31.6	32.023	1.2	0.004
92556	34.22	579	11.13	0.048	0.37	300	2220	13.55	8.44	22.00	4.48	56.2	69.837	19.5	0.112
92557	5.19	501	17.99	0.041	0.41	300		13.48	1.11	14.59	5.34	11.3	16.776	32.6	0.029
92558	8.87	535	16.27	0.087	0.40	300	270	10.65	0.00	10.65	6.05	21.3	35.037	39.1	0.058
92559	14.01	540	2.03	0.091	0.31	300		11.76	0.00	11.76	5.86	25.6	37.199	31.1	0.073
92560	10.46	534	11.99	0.073	0.37	300		11.70	0.00	11.70	5.86	22.8	28.583	20.2	0.036
92561	5.42	544	10.5	0.038	0.36	300		14.72	0.00	14.72	5.34	10.5	15.037	30.1	0.028
92564	12.62	532	6.88	0.077	0.34	300		11.98	1.17	13.15	5.5	23.7	32.987	28.2	0.060
92566	2.51	533	18	0.033	0.41	300	390	14.49	0.00	14.49	5.34	5.5	6.717	18.6	0.008
92567	64.59	529	5.59	0.047	0.33	300	1050	14.27	4.04	18.30	4.8	103.4	71.903	-43.8	-0.477
92568	38.24	391	1.73	0.077	0.31	300	750	12.47	2.25	14.72	5.34	63.4	79.238	20.0	0.129
92570	118.63	240	0	0.044	0.30	300		15.22	0.00	15.00	5.19	184.7	120.385	-53.4	-1.068
92780	34.22	177	0	0.088	0.30	300		12.08	0.00	12.08	5.67	58.2	71.392	18.5	0.106
92801	8.99	201	0	0.149	0.30	300	300	10.14	0.65	10.78	6.05	16.3	29.873	45.4	0.069
92802	14.98	248	0	0.13	0.30	300		10.61	0.00	10.61	6.05	27.2	49.857	45.5	0.115
92803	11.91	134	11.45	0.061	0.37	300	390	12.48	1.32	13.79	5.5	24.2	28.821	16.2	0.033
92804	26.01	80	3.88	0.097	0.32	300	255	11.35	0.68	12.04	5.67	47.7	65.89	27.6	0.121
92823	407.72	2	0	0.095	0.30	N/A		0.00	0.00	5.00	7.26	888.0	426.856	-108.0	-7.423
92870	4.33	830	85	0.02	0.81	300		7.18	0.00	7.18	6.71	23.5	21.511	-9.4	-0.007
Total Area:	5933.86											Total Area	Weighted % Difference:	-29.1	

Drainage ID	Area, sq. ft.	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	10-Year Future condition		S-WMM vs. Rational Method		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSW Ratio, % Difference	Area Weighted Difference, %
						Flow Length	Overland (<300 ft)	Gutter	Pipe						
84550	8.58	646	80	0.033	0.78	300	0.00	0.00	6.70	6.96	46.6	40.763	-14.3	-0.021	
84582	6.04	748	19.28	0.071	0.42	300	0.00	0.00	11.10	5.86	11.10	19.366	24.0	0.024	
84583	9.06	714	18	0.074	0.41	300	0.00	0.00	11.07	5.86	21.7	21.575	-0.4	-0.001	
84583	11.31	749	31.33	0.044	0.49	300	0.00	0.00	11.64	5.86	32.3	34.187	5.4	0.010	
84588	14.6	649	18	0.074	0.41	300	0.00	0.00	11.07	5.86	34.9	42.416	17.7	0.044	
84591	26.91	612	1.12	0.06	0.31	N/A	0.00	0.00	5.00	7.26	59.9	65.903	9.1	0.041	
84593	12.67	578	0.11	0.08	0.30	N/A	0.00	0.00	5.00	7.26	27.7	33.237	16.8	0.036	
84595	20.2	539	0	0.06	0.30	N/A	0.00	0.00	5.00	7.26	44.0	48.474	9.2	0.031	
84597	6.74	538	76.44	0.044	0.76	300	0.00	0.00	6.49	6.96	35.6	33.576	-6.0	-0.007	
84598	2.78	537	80	0.058	0.78	300	0.00	0.00	5.55	7.26	15.7	14.24	-10.6	-0.005	
84606	1.5	564	80	0.071	0.78	210	90	0.00	4.34	7.26	8.5	7.7	-10.3	-0.003	
84609	11.63	471	65.56	0.074	0.69	300	0.00	0.00	6.51	6.96	56.1	54.488	-3.0	-0.006	
84618	1.26	506	70.27	0.081	0.72	300	210	0.00	6.49	6.96	9.2	9.214	0.2	0.000	
84618	4.39	499	60	0.044	0.66	300	150	0.00	8.97	6.96	5.4	5.957	9.5	0.002	
84618	4.39	500	60	0.062	0.66	300	150	0.00	7.47	6.96	19.4	20.655	5.9	0.004	
84621	29.18	585	36.95	0.049	0.52	300	180	0.00	10.62	6.96	92.1	90.259	-2.0	-0.010	
84622	1.3	587	60	0.062	0.66	300	0.00	0.00	7.47	6.96	5.6	6.204	10.4	0.004	
84624	4.74	536	60	0.047	0.66	300	0.00	0.00	8.19	5.5	20.3	21.439	5.4	0.004	
84633	50.13	412	0.02	0.058	0.30	N/A	0.00	0.00	10.62	5.5	109.2	105.66	-3.4	-0.029	
84637	1.33	409	79.74	0.015	0.78	N/A	0.00	0.00	8.07	6.48	6.7	6.725	0.2	0.000	
84638	5.89	386	80	0.038	0.78	300	540	0.00	0.00	6.96	32.0	29.686	-7.7	-0.008	
84640	2.1	384	24.87	0.024	0.45	240	75	0.00	6.39	6.96	5.2	7.78	33.3	0.012	
84641	2.17	380	18	0.068	0.41	300	0.00	0.00	13.55	5.5	5.2	7.776	33.3	0.012	
84643	37	285	56.06	0.032	0.64	300	0.00	0.00	11.39	5.86	5.2	7.776	33.3	0.012	
84647	2.4	388	18	0.021	0.41	180	390	0.00	9.81	6.26	147.4	138.021	-6.8	-0.042	
84662	9.54	860	85	0.071	0.81	300	0.00	0.00	13.05	5.19	5.1	8.903	42.9	0.017	
84672	20.44	852	84.84	0.051	0.81	300	0.00	0.00	4.70	7.26	56.1	48.525	-15.6	-0.025	
84675	2.34	859	84.92	0.067	0.81	300	0.00	0.00	5.27	7.26	120.1	98.752	-21.6	-0.074	
84680	2.33	856	82.31	0.064	0.79	300	0.00	0.00	4.80	7.26	13.8	11.755	-17.0	-0.007	
84683	5.93	876	19.05	0.048	0.41	300	0.00	0.00	5.14	7.26	13.4	11.94	-12.5	-0.005	
84685	30.98	877	79.92	0.079	0.78	300	300	0.00	12.67	5.67	175.3	155.168	-13.0	-0.068	
84692	1.53	818	67.31	0.067	0.70	300	0.00	0.00	5.02	7.26	7.5	7.321	-2.4	-0.001	
84695	0.91	812	62.41	0.06	0.67	300	0.00	0.00	7.30	6.71	4.1	4.407	6.6	0.001	
84695	10.17	820	85	0.042	0.81	300	0.00	0.00	5.60	7.26	59.8	50.6	-18.2	-0.031	
84702	2.68	801	37.95	0.068	0.53	300	0.00	0.00	9.42	6.26	8.9	10.676	17.1	0.008	
84703	16.34	802	79.33	0.057	0.78	300	0.00	0.00	5.66	7.26	92.1	80.866	-13.8	-0.038	
84707	4.47	815	82.22	0.083	0.79	300	0.00	0.00	5.66	7.26	25.7	22.599	-13.9	-0.010	
84712	2.84	786	18	0.083	0.41	300	0.00	0.00	4.72	6.05	7.0	9.239	24.1	0.012	
84727	1.56	784	18	0.088	0.41	150	0.00	0.00	10.66	6.05	4.3	6.866	37.8	0.010	
84727	1.28	787	18	0.056	0.41	150	0.00	0.00	7.39	6.48	3.4	5.291	36.0	0.008	
84727	0.77	795	18	0.025	0.41	210	0.00	0.00	8.59	5.5	1.7	2.958	41.6	0.005	
84736	3.01	746	18	0.004	0.41	300	0.00	0.00	13.30	5.86	5.6	7.925	29.1	0.012	
84736	0.9	762	18	0.082	0.41	180	0.00	0.00	11.28	5.19	6.4	5.151	-23.7	-0.012	
84739	4.68	745	18	0.067	0.41	300	0.00	0.00	8.29	6.48	2.4	3.904	39.1	0.006	
84741	14.08	747	18	0.132	0.41	300	0.00	0.00	11.44	5.86	11.2	12.309	9.1	0.007	
84747	5.93	672	18	0.024	0.41	300	0.00	0.00	9.82	6.26	36.0	49.101	26.8	0.063	
84749	5.02	671	18	0.059	0.41	300	0.00	0.00	15.00	5.19	12.6	11.435	-9.8	-0.010	
84751	6.01	680	18	0.1	0.41	300	0.00	0.00	11.94	5.86	12.0	16.483	27.2	0.023	
84757	1.3	502	60	0.023	0.66	210	90	0.00	10.01	6.05	14.8	18.569	20.1	0.020	
84757	0.83	519	60	0.057	0.66	300	0.00	0.00	8.69	6.26	5.4	5.952	9.8	0.002	
84758	2.52	521	56.72	0.145	0.64	150	0.00	0.00	7.68	6.71	3.7	4.194	12.4	0.002	
84759	1.9	525	21.2	0.075	0.43	150	210	0.00	4.16	7.26	11.7	12.691	7.7	0.003	
84769	1.27	549	18	0.04	0.41	300	300	0.00	7.58	6.48	5.3	8.624	39.0	0.012	
84771	21.42	608	21.1	0.082	0.43	300	0.00	0.00	13.59	5.5	2.8	5.451	47.7	0.010	
84772	5.24	632	17.61	0.048	0.41	300	0.00	0.00	10.41	6.05	55.3	52.097	-6.1	-0.022	
84785	35.47	21	18	0.071	0.41	N/A	0.00	0.00	12.83	5.67	12.1	13.175	8.5	0.008	
84791	3.35	879	22.58	0.067	0.44	300	0.00	0.00	0.00	7.26	105.1	117.651	10.7	0.064	
84791	2.56	880	18.92	0.1	0.41	120	0.00	0.00	10.99	6.05	8.8	12.868	31.4	0.018	
84791	7.77	882	22.83	0.055	0.44	300	0.00	0.00	6.28	6.96	7.4	11.925	38.2	0.016	
84791	7.77	882	22.83	0.055	0.44	300	0.00	0.00	11.71	5.86	19.9	24.95	20.3	0.027	

Drainage ID	Inches	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	10-Year Future condition		Time of Concentration		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Rational % Difference	Area Weighed Difference
						Overland (<300 ft)	Flow Length	Pipe	Gutter						
84793	22.53	863	45.05	0.058	0.57	300			9.19	6.26	80.4	74.049	-8.6	-0.033	
84795	22.54	864	56.1	0.07	0.64	300			7.55	6.71	96.3	90.992	-5.8	-0.022	
84798	1.89	885	85	0.085	0.81	300			4.43	7.26	11.1	9.604	-15.7	-0.005	
84800	5.29	888	85	0.085	0.81	300			4.43	7.26	31.1	26.817	-16.0	-0.014	
84808	7.84	853	55.23	0.108	0.63	300	300		6.61	6.71	33.2	35.981	7.7	0.010	
84813	3.09	846	85	0.1	0.81	300			4.20	7.26	18.2	15.813	-14.9	-0.008	
84820	10.19	837	85	0.123	0.81	300			3.92	7.26	59.9	51.889	-15.5	-0.027	
84823	14.9	862	74.24	0.075	0.75	300			5.65	7.26	28.2	29.28	3.8	0.005	
84839	0.58	848	58.69	0.034	0.65	180			7.19	6.71	2.5	2.814	9.8	0.001	
84840	5.16	817	85	0.141	0.81	300			3.74	7.26	30.3	26.551	-14.3	-0.012	
84869	3.29	781	28.01	0.031	0.47	300			13.51	5.5	8.5	10.431	18.8	0.010	
84870	7.79	811	84.37	0.028	0.81	300			6.50	6.96	43.7	39.324	-11.2	-0.015	
84871	4.72	816	84.98	0.057	0.81	300			5.06	7.26	27.8	24.245	-14.5	-0.012	
84872	3.89	813	84.87	0.286	0.81	240			2.65	7.26	22.9	20.042	-14.0	-0.009	
84885	2.17	835	85	0.03	0.81	N/A	360		9.62	6.26	25.0	26.609	5.9	0.007	
84892	5.37	875	60	0.067	0.66	300			7.28	6.71	23.8	22.82	-4.2	-0.004	
84895	5.2	861	60	0.047	0.66	300			6.48	6.96	18.8	19.522	10.0	0.009	
84899	4.09	872	59.93	0.095	0.66	300			6.52	6.96	7.7	8.368	7.8	0.003	
84903	1.68	855	60	0.093	0.66	300			7.92	6.71	31.0	31.644	2.2	0.003	
84909	3.95	833	84.93	0.067	0.81	300			4.80	7.26	23.2	20.232	-14.8	-0.010	
84925	0.19	838	85	0.29	0.81	180			2.28	7.26	1.1	0.979	-14.1	-0.000	
84935	7.19	669	18	0.104	0.41	300			9.88	6.26	18.4	25.992	29.3	0.036	
84944	31.87	571	38.45	0.043	0.53	300			12.01	6.05	102.3	90.565	-13.0	-0.070	
84946	1.87	635	18	0.058	0.41	300			11.69	5.67	4.3	7.238	40.2	0.013	
84948	5.57	631	16.68	0.065	0.40	300			13.59	5.86	13.1	17.224	24.2	0.018	
84956	4.27	613	18	0.04	0.41	300			13.59	5.5	9.6	15.134	36.7	0.026	
84959	2.2	604	18	0.062	0.41	300			11.74	5.86	5.3	7.289	27.8	0.010	
84963	2.03	567	18	0.036	0.41	300			14.08	5.34	4.4	6.024	26.6	0.009	
84972	3.66	553	18	0.059	0.41	300	120		11.94	5.67	12.1	18.517	34.4	0.030	
84973	3.75	510	18.02	0.031	0.41	300	330		13.59	5.5	8.2	10.636	22.8	0.014	
84973	3.58	516	18.03	0.028	0.41	300			14.79	5.05	7.7	10.796	28.4	0.018	
84978	6.3	469	18.84	0.057	0.41	300			15.30	5.19	7.6	7.609	0.3	0.000	
84983	3.25	465	18.25	0.047	0.41	300			12.85	5.67	7.5	11.875	36.5	0.020	
84983	4.08	497	35.83	0.046	0.51	300			10.97	6.05	12.7	16.596	23.4	0.016	
84987	23.79	498	57.58	0.043	0.65	300			8.71	6.48	99.5	97.636	-1.9	-0.008	
84989	6.33	526	60	0.044	0.66	300			8.37	6.48	27.1	28.509	5.0	0.005	
85009	4.75	418	18	0.045	0.41	300			13.07	5.5	10.7	15.478	31.1	0.025	
85011	3.91	417	18	0.046	0.41	300			12.97	5.67	9.0	11.9	24.0	0.016	
85015	6.5	414	18	0.04	0.41	300			13.59	5.5	5.6	18.881	22.7	0.025	
85025	2.51	379	18	0.053	0.41	300	360		13.59	5.5	14.6	18.881	22.7	0.025	
85025	3.47	369	18	0.067	0.41	300	60		12.37	5.5	5.6	9.327	39.6	0.017	
85028	9.69	378	18	0.04	0.41	300	60		11.44	5.86	8.3	13.368	37.9	0.022	
85035	4.87	304	18	0.067	0.41	300	360		13.59	5.19	20.5	28.165	27.1	0.044	
85035	4.87	319	18	0.037	0.41	300	330		11.44	5.67	11.3	18.77	40.0	0.033	
85035	1.39	338	18	0.025	0.41	300	120		13.95	5.34	10.6	12.007	11.6	0.010	
85035	3.25	339	18	0.031	0.41	300			15.90	5.34	2.9	4.014	26.7	0.006	
85042	3.71	308	18	0.056	0.41	300	60		14.80	5.34	7.1	7.699	8.0	0.004	
85043	2.41	344	18	0.055	0.41	300			12.15	5.67	8.6	10.431	17.7	0.011	
85045	3.35	341	18	0.09	0.41	300			12.22	5.67	5.6	8.155	31.6	0.013	
85047	2.89	348	18	0.044	0.41	300			10.37	6.05	8.3	14.449	42.8	0.024	
85055	2.52	267	18	0.064	0.41	300	210		11.62	5.5	6.5	6.795	14.2	0.006	
85056	4.21	255	18	0.054	0.41	300			13.17	5.67	5.8	6.795	14.2	0.006	
85061	2.5	210	18	0.06	0.41	300	150		12.30	5.67	9.7	10.549	45.2	0.019	
85061	2.64	227	18	0.058	0.41	300	210		12.01	5.67	6.1	7.965	23.3	0.010	
85061	6.85	242	18	0.04	0.41	300	540		13.59	5.19	14.5	14.658	1.0	0.001	
85069	9.03	203	24.71	0.035	0.45	300	330		13.38	5.34	21.6	30.477	29.1	0.044	

Drainage ID	Area, sq. ft.	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	Overland (<300 ft)		Flow Length		10-Year Future condition			S-WMM vs. Rational Method			Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSV - Ratio - Difference %	Area Weighted Difference %
						Gutter	Pipe	Gutter	Pipe	σ<T<15	Time of Concentration	intensity	Q, cfs	Q, cfs							
85079	3.75	212	18	0.076	0.41	300				10.97	0.00	0.00	0.00	10.97	6.05	12.904	12.904	26.3	0.018		
85086	1.26	272	18	0.06	0.41	300				11.87	0.00	0.00	0.00	11.87	5.86	4.785	4.785	37.0	0.008		
85104	6.16	77	18	0.105	0.41	300				10.37	0.00	0.00	0.00	10.37	6.05	12.04	12.04	33.2	0.016		
85107	10.39	45	17.31	0.051	0.40	300				9.85	0.00	0.00	0.00	9.85	6.26	20.896	20.896	24.7	0.026		
85110	13.01	68	18	0.044	0.41	300				12.61	0.00	0.00	0.00	12.61	5.67	26.338	26.338	9.7	0.017		
85126	3.5	634	17.92	0.09	0.41	300				13.17	0.00	0.00	0.00	13.17	5.5	28.453	28.453	-2.6	-0.006		
85149	8.39	461	18	0.036	0.41	300				10.38	0.00	0.00	0.00	10.38	6.05	12.905	12.905	33.1	0.020		
85151	4.56	511	18	0.05	0.41	300				14.08	0.00	0.00	0.00	14.08	5.34	23.836	23.836	23.3	0.033		
85154	1.92	495	18	0.048	0.41	300				12.62	0.00	0.00	0.00	12.62	5.67	15.17	15.17	30.5	0.023		
85154	3.24	496	18	0.032	0.41	300				12.79	0.00	0.00	0.00	12.79	5.67	4.4	7.437	40.3	0.013		
85157	1	490	77.63	0.032	0.77	300				14.64	0.00	0.00	0.00	14.64	5.34	7.1	8.97	21.3	0.012		
85159	3.26	466	83.88	0.04	0.80	300				7.07	0.00	0.00	0.00	7.07	6.71	5.1	5.1	-0.2	-0.000		
85160	6.36	575	17.95	0.07	0.41	300				5.83	0.00	0.00	0.00	5.83	7.26	19.0	16.665	-14.1	-0.008		
85162	1.46	897	22.58	0.088889	0.44	300				11.28	0.00	0.00	0.00	11.28	5.86	15.2	22.486	32.4	0.035		
85164	5.47	555	27.07	0.08	0.46	300				10.00	0.00	0.00	0.00	10.00	6.05	3.8	6.634	42.0	0.010		
85172	9.16	550	61.34	0.062	0.67	300				9.94	0.00	0.00	0.00	9.94	6.26	15.8	23.427	32.4	0.030		
85172	7.88	573	24.08	0.068	0.44	300				7.33	0.00	0.00	0.00	7.33	6.71	41.1	43.404	5.4	0.008		
85174	5.62	592	18	0.086	0.41	300				10.79	0.00	0.00	0.00	10.79	6.05	21.2	26.106	18.8	0.025		
85183	3.83	407	18	0.064	0.41	180				10.53	0.00	0.00	0.00	10.53	6.05	13.9	21.468	35.4	0.034		
85183	2.53	463	18	0.018	0.41	300				9.00	0.00	0.00	0.00	9.00	5.5	8.6	13.64	37.0	0.024		
85184	9.68	413	18	0.042	0.41	300		1350		17.74	0.00	0.00	0.00	17.74	5.19	5.4	5.499	2.6	0.001		
85188	1.03	493	22.25	0.032	0.43	300				13.37	0.00	0.00	0.00	13.37	5.5	21.7	19.006	-14.3	-0.023		
85189	9.02	411	18	0.07	0.41	300				14.10	0.00	0.00	0.00	14.10	5.34	2.4	4.57	47.8	0.008		
85193	7.51	373	17.92	0.148	0.41	300				11.28	0.00	0.00	0.00	11.28	5.86	21.6	31.897	32.4	0.049		
85197	4.54	331	14.17	0.293	0.39	300				8.79	0.00	0.00	0.00	8.79	6.48	19.8	19.649	-0.9	-0.001		
85200	4.97	329	18	0.105	0.41	300				7.23	0.00	0.00	0.00	7.23	6.71	11.7	17.566	33.2	0.025		
85202	7.5	310	18	0.106	0.41	300				9.85	0.00	0.00	0.00	9.85	6.26	12.7	18.791	32.4	0.027		
85202	3.43	333	17.62	0.57	0.41	300				9.82	0.00	0.00	0.00	9.82	6.26	19.2	29.302	34.6	0.044		
85202	5.02	365	17.96	0.129	0.41	300				5.62	0.00	0.00	0.00	5.62	7.26	10.1	16.452	38.6	0.022		
85206	5.79	330	18	0.034	0.41	300				9.20	0.00	0.00	0.00	9.20	6.26	12.8	13.057	1.9	0.002		
85219	3.19	372	16.86	0.198	0.40	300				14.35	0.00	0.00	0.00	14.35	5.34	8.3	10.213	18.8	0.010		
85230	6.48	404	18.01	0.093	0.41	300				8.05	0.00	0.00	0.00	8.05	6.48	3.8	5.244	27.8	0.007		
85238	1.53	370	11.87	0.221	0.37	300				7.88	0.00	0.00	0.00	7.88	6.71	16.0	26.145	38.8	0.042		
85247	3.58	462	18.95	0.033	0.41	300				10.26	0.00	0.00	0.00	10.26	6.05	3.7	5.356	31.3	0.008		
85251	30.1	350	50.78	0.163	0.60	300				8.10	0.00	0.00	0.00	8.10	6.48	7.9	10.889	27.4	0.017		
85261	4.75	427	84.94	0.032	0.81	300		60		6.09	0.00	0.00	0.00	6.09	6.96	126.7	123.117	-2.9	-0.015		
85267	6.22	460	25.12	0.05	0.45	300				6.14	0.00	0.00	0.00	6.14	6.96	26.8	24.377	-9.8	-0.008		
85275	4.85	273	18	0.086	0.41	300				11.84	0.00	0.00	0.00	11.84	5.86	12.8	20.802	38.7	0.031		
85276	4.27	275	18	0.032	0.41	300				10.53	0.00	0.00	0.00	10.53	6.05	15.4	17.997	14.7	0.015		
85281	0.82	264	18	0.053	0.41	300				14.64	0.00	0.00	0.00	14.64	5.34	10.6	12.128	12.9	0.011		
85282	0.86	261	18	0.067	0.41	285				12.37	0.00	0.00	0.00	12.37	5.67	9.9	15.874	37.8	0.027		
85284	0.44	263	18	0.057	0.41	240				11.15	0.00	0.00	0.00	11.15	5.86	2.0	3.16	38.0	0.005		
85286	1.86	259	18	0.1	0.41	90				10.80	0.00	0.00	0.00	10.80	5.86	2.1	3.074	33.1	0.005		
85296	2.9	224	18	0.077	0.41	240				5.48	0.16	0.00	0.00	5.64	7.26	1.3	2.015	35.3	0.003		
85300	2.75	220	18	0.051	0.41	300				10.24	0.00	0.00	0.00	10.24	5.86	4.4	7.62	41.6	0.013		
85302	12.64	188	18	0.064	0.41	300				0.00	0.369	0.00	0.00	8.69	6.48	7.7	13.38	42.7	0.021		
85303	2.73	150	18	0.048	0.41	300				12.53	0.22	0.00	0.00	12.76	5.67	6.4	8.339	23.7	0.011		
85305	3.7	228	18	0.077	0.41	300				11.62	0.69	0.00	0.00	12.31	5.67	29.2	42.481	31.2	0.066		
85307	4.08	246	18	0.076	0.41	300				10.93	0.00	0.00	0.00	10.93	6.05	9.1	15.114	39.6	0.025		
85310	1.32	258	18	0.059	0.41	180				10.97	0.00	0.00	0.00	10.97	6.05	10.1	17.465	42.3	0.029		
85311	5.49	265	18	0.073	0.41	300				9.25	1.34	0.00	0.00	10.59	6.05	3.3	5.741	43.2	0.010		
85312	1.19	260	18	0.078	0.41	240				11.12	0.00	0.00	0.00	11.12	5.86	13.1	20.831	37.0	0.034		
85317	5.54	893	18	0.071	0.41	300				9.73	0.18	0.00	0.00	9.91	6.26	3.0	5.009	39.3	0.008		
85319	2.35	301	18	0.107	0.41	300				11.23	0.00	0.00	0.00	11.23	5.86	13.2	21.953	39.7	0.037		
85324	9.29	222	18	0.151	0.41	300				9.79	0.54	0.00	0.00	10.33	6.05	5.8	8.577	32.4	0.013		
85325	2.79	226	18	0.075	0.41	N/A				8.73	0.00	0.00	0.00	8.73	6.48	24.6	26.704	8.0	0.013		
85328	22.35	245	18	0.124	0.41	300				0.00	2.42	0.00	0.00	7.42	6.71	7.6	10.721	28.8	0.014		
										9.32	0.00	0.00	0.00	9.32	6.26	57.1	62.372	8.5	0.032		

Drainage ID	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	10-Year Future conditions			SWMM vs. Rational Method			Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Rator. % Difference	Area Weighted Difference %
					Flow Length	Overland (<300 ft)	Time of Concentration	Flow Length	Overland (<300 ft)	Time of Concentration						
85331	206	18	0.054	0.41	300	390	12.30	1.40	0.00	13.70	5.5	4.6	7.147	35.3	0.012	
85336	9.61	12.5	0.214	0.38	300	300	8.14	0.00	0.00	8.14	6.48	23.4	34.629	32.6	0.053	
85342	2.29	18	0.112	0.41	300	300	9.64	0.00	0.00	9.64	6.26	5.8	10.403	38.1	0.017	
85346	3.64	18	0.084	0.41	300	300	10.61	0.00	0.00	10.61	6.05	9.0	14.508	38.1	0.023	
85347	1.88	18	0.067	0.41	300	60	11.44	0.00	0.00	11.44	5.86	4.5	6.566	31.5	0.010	
85362	9.76	18	0.07	0.41	300	60	12.88	0.23	0.00	13.11	5.5	21.9	35.567	38.4	0.063	
85368	2.04	18	0.218	0.41	300	60	11.28	0.19	0.00	11.47	5.86	4.9	8.749	44.3	0.015	
85372	1.56	18	0.124	0.41	300	300	7.72	0.00	0.00	7.72	6.71	4.3	7.57	43.6	0.011	
85376	3.02	0	0.155	0.30	300	300	9.32	0.00	0.00	9.32	6.26	5.5	39.257	7.8	-0.022	
85381	4.89	16.58	0.15	0.40	300	390	8.86	0.00	0.00	8.86	6.48	108.4	123.002	23.9	0.012	
85386	2.37	18	0.113	0.41	300	315	9.61	0.97	0.00	10.58	6.05	5.9	9.803	40.3	0.016	
85388	6.85	18	0.133	0.41	300	300	11.56	1.03	0.00	12.59	5.67	15.8	22.698	30.2	0.035	
85389	3.11	18	0.106	0.41	300	300	9.11	0.00	0.00	9.11	6.26	7.9	13.391	40.7	0.021	
85386	1.98	18	0.106	0.41	225	300	8.51	0.00	0.00	8.51	6.48	2.8	4.313	34.4	0.006	
85388	3.29	18	0.063	0.41	300	300	9.59	0.00	0.00	9.59	6.26	5.1	7.756	34.8	0.012	
85388	0.78	18	0.021	0.41	300	300	11.68	0.00	0.00	11.68	5.86	7.9	10.412	24.5	0.014	
85389	4.34	18	0.062	0.41	300	300	16.85	0.00	0.00	15.00	5.19	1.7	2.482	33.5	0.004	
85391	1.24	18	0.037	0.41	270	300	11.14	1.00	0.00	12.15	5.67	10.0	16.697	39.9	0.029	
85394	2.09	18	0.05	0.41	210	90	11.67	0.39	0.00	12.06	6.05	2.9	4.506	36.3	0.008	
85397	3.51	18	0.143	0.41	240	90	10.56	0.34	0.05	10.94	6.05	5.2	7.528	31.5	0.011	
85405	1.49	18	0.074	0.41	300	240	7.95	0.00	0.00	7.95	6.71	9.6	16.016	40.0	0.024	
85406	1.75	18	0.05	0.41	210	450	11.07	0.74	0.00	11.81	5.86	3.6	6.083	41.4	0.010	
85407	16.39	18	0.18	0.41	300	720	10.56	1.68	0.00	12.23	5.67	4.0	7.328	44.8	0.013	
85412	6.38	18	0.18	0.41	300	270	8.23	1.41	0.00	9.65	6.26	41.9	57.136	26.7	0.074	
85416	6.72	18	0.091	0.41	300	300	10.33	0.75	0.00	11.08	5.86	15.3	19.721	22.7	0.024	
85417	0.64	18	0.209	0.41	300	300	7.83	0.00	0.17	8.00	6.71	18.4	27.482	33.1	0.037	
85427	3.79	18	0.22	0.41	210	30	6.44	0.05	0.00	6.50	6.96	1.8	3.006	39.5	0.004	
85437	2.4	18	0.19	0.41	300	150	8.09	0.00	0.00	8.09	6.48	6.3	9.916	36.0	0.015	
85440	2.85	18	0.168	0.41	300	300	8.23	0.29	0.00	8.53	6.48	10.0	17.683	43.3	0.028	
85442	3.04	18	0.179	0.41	300	150	8.42	0.00	0.00	8.42	6.48	7.5	11.829	36.3	0.019	
85443	21.79	18	0.129	0.41	300	60	9.20	0.00	0.00	9.20	6.26	55.7	73.407	24.2	0.089	
85463	9.56	34.13	0.123	0.50	300	420	8.04	1.00	0.00	9.04	6.26	30.2	37.161	18.7	0.030	
85466	9.49	82.08	0.04	0.79	300	300	6.04	0.00	0.00	6.04	6.96	52.3	47.588	10.0	-0.016	
85470	3.82	60	0.036	0.66	300	300	8.95	0.00	0.00	8.95	6.48	16.3	16.971	3.7	0.002	
85470	4.18	60	0.043	0.66	300	300	8.44	0.00	0.00	8.44	6.48	17.9	19.937	10.3	0.007	
85470	5.76	68.36	0.038	0.71	300	300	7.79	0.00	0.00	7.79	6.71	27.4	27.827	1.4	0.001	
85475	7.36	53.11	0.033	0.62	300	300	10.08	1.38	0.00	11.46	5.86	26.7	30.192	11.6	0.014	
85510	8.83	49.15	0.061	0.59	300	600	8.62	0.00	0.00	8.62	6.48	34.0	37.02	8.1	0.012	
85511	17.78	18	0.074	0.41	300	300	11.07	1.84	0.00	12.91	5.67	41.1	49.139	16.3	0.049	
85515	13.08	18	0.076	0.41	300	300	11.28	0.00	0.00	11.28	5.86	17.1	24.533	30.1	0.036	
85541	16.12	18	0.08	0.41	300	60	10.97	0.00	0.00	10.97	6.05	32.3	41.148	21.5	0.047	
85543	10.74	18	0.071	0.41	300	300	10.79	0.18	0.00	10.96	6.05	39.8	49.335	19.3	0.053	
85550	7.95	18.03	0.06	0.41	300	510	11.87	0.00	0.00	11.87	5.86	25.7	29.422	12.7	0.023	
85554	10.05	51.23	0.051	0.61	300	300	8.92	1.88	0.00	10.80	6.05	19.0	20.685	8.1	0.011	
85564	5.33	18	0.033	0.41	300	300	14.49	0.00	0.00	14.49	5.34	11.6	17.391	33.2	0.030	
85565	6.66	18	0.093	0.41	300	300	10.26	0.00	0.00	10.26	6.05	16.4	22.66	27.5	0.031	
85575	1.58	54.43	0.08	0.63	300	300	7.38	0.00	0.00	7.38	6.71	6.6	7.279	8.7	0.002	
85575	1.01	83.67	0.055	0.80	300	300	5.26	0.00	0.00	5.26	7.26	5.9	5.178	-13.6	-0.002	
85586	4.38	62.29	0.095	0.67	300	300	6.27	0.00	0.00	6.27	6.96	20.5	20.571	0.2	0.000	
85590	3.89	45.34	0.113	0.57	300	300	7.34	0.00	0.00	7.34	6.71	14.9	16.546	9.8	0.006	
85598	7.85	769	43.02	0.108	300	300	7.64	0.00	0.00	7.64	6.71	29.4	33.256	11.6	0.015	
85607	4.22	770	45.72	0.087	300	300	7.97	0.00	0.00	7.97	6.71	16.3	19.312	15.8	0.011	
85610	7.81	804	60.03	0.046	300	300	8.24	0.00	0.00	8.24	6.48	33.4	33.509	0.3	0.000	
85642	5.45	614	32.72	0.059	300	300	10.42	0.00	0.00	10.42	6.05	16.4	21.907	25.3	0.023	
85645	5.28	627	18	0.081	300	300	10.74	0.00	0.00	10.74	6.05	13.0	19.177	32.0	0.029	
85659	10.56	548	25.29	0.043	300	300	12.43	0.00	0.00	12.43	5.67	27.0	30.472	11.2	0.020	
85663	10.13	547	45.95	0.02	300	300	12.97	0.00	0.00	12.97	5.67	33.1	38.035	13.1	0.022	

Drainage ID	as	Subcatch ID	Percent Impervious	Subcatch Slope, fl/ft	C	Overland		Flow Length		10-Year Future conditions		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM		Area Weighted Difference
						<300 ft	>300 ft	Gutter	Pipe	Q, cfs	% Difference						
85668	5.94	507	61.52	0.05	0.67	300	7.86	0.34	0.00	8.19	6.48	25.8	26.965	4.5	0.004		
85669	4.96	508	60	0.04	0.66	300	8.64	0.00	0.00	8.64	6.48	21.2	21.935	3.3	0.003		
85672	5.14	504	75.96	0.03	0.76	300	7.44	0.00	0.00	7.44	6.71	26.1	25.186	-3.5	-0.003		
85695	14.94	586	36.43	0.08	0.52	300	9.06	0.00	0.00	9.06	6.26	48.5	62.781	22.7	0.057		
85701	3.46	783	56.09	0.087	0.64	300	7.03	0.00	0.00	7.03	6.71	14.8	15.477	4.5	0.003		
85724	3.2	789	60	0.107	0.66	300	6.23	0.00	0.00	6.23	6.96	14.7	15.208	3.3	0.002		
85734	5.15	763	32.57	0.087	0.50	300	9.16	0.00	0.00	9.16	6.26	16.0	21.911	27.1	0.024		
85737	4.01	799	58.68	0.05	0.65	300	8.17	0.00	0.00	8.17	6.48	16.9	18.434	8.1	0.005		
85739	4.75	774	84.6	0.067	0.81	300	4.84	0.00	0.00	5.00	7.26	27.9	24.423	-14.0	-0.011		
85739	5.97	806	84.98	0.034	0.81	300	6.02	0.00	0.00	6.02	6.96	33.7	29.859	-12.7	-0.013		
85743	5.74	686	59.62	0.063	0.66	300	7.47	0.00	0.00	7.47	6.71	25.3	25.635	1.2	0.001		
85746	16.98	679	60	0.04	0.66	300	8.64	0.00	0.00	8.64	6.48	72.6	70.629	-2.8	-0.008		
85760	9.53	730	44.34	0.076	0.57	300	8.47	0.00	0.00	8.47	6.48	35.0	38.721	9.7	0.016		
85768	4.62	779	64.48	0.08	0.69	300	6.44	0.00	0.00	7.41	7.26	18.7	16.683	-12.4	-0.007		
85774	3.25	794	82.41	0.096	0.79	300	4.48	0.00	0.00	5.00	7.26	24.9	23.178	-7.4	-0.006		
85782	4.76	777	70.02	0.08	0.72	300	5.92	0.00	0.00	5.92	6.48	28.2	29.476	4.3	0.005		
85792	6.49	660	61.82	0.059	0.67	300	7.40	0.62	0.00	6.98	6.96	31.2	31.768	1.8	0.002		
85798	6.32	670	60	0.043	0.66	300	8.44	0.00	0.00	8.44	6.48	27.0	29.258	7.6	0.008		
85798	6.56	691	60	0.032	0.66	300	9.31	0.00	0.00	9.31	6.26	27.1	31.136	13.0	0.014		
85802	2.54	712	60	0.051	0.66	300	7.97	0.00	0.00	7.97	6.71	11.2	11.942	5.8	0.002		
85805	10.04	707	69.34	0.063	0.72	300	6.48	0.00	0.00	6.48	6.96	50.0	49.539	-1.0	-0.002		
85820	1.42	865	53.52	0.16	0.62	N/A	0.00	1.44	0.00	6.44	6.96	6.1	6.987	12.1	0.003		
85844	4.27	829	81.34	0.06	0.79	300	5.35	0.00	0.00	5.35	7.26	24.4	21.825	-11.9	-0.009		
85848	2.95	827	80.56	0.029	0.78	300	6.92	0.00	0.00	6.92	6.96	16.1	14.897	-8.0	-0.004		
85853	1.38	822	82.45	0.02	0.79	150	5.34	0.00	0.00	5.34	7.26	8.0	7.087	-12.3	-0.003		
85870	4.18	854	34.05	0.119	0.50	300	8.13	0.00	0.00	8.13	6.48	13.7	15.796	13.5	0.010		
85870	6.3	863	56.62	0.1	0.64	300	6.66	0.00	0.00	6.66	6.96	28.1	28.382	1.2	0.001		
85870	3.29	864	53.13	0.113	0.62	300	6.69	0.00	0.00	6.69	6.96	14.2	15.711	9.8	0.005		
85870	0.83	866	60	0.15	0.66	240	4.98	0.00	0.00	5.00	7.26	4.0	4.131	3.7	0.001		
85873	4.36	847	60	0.103	0.66	300	6.30	0.00	0.00	6.30	6.96	20.0	19.81	-1.1	-0.001		
85873	6.57	849	60	0.113	0.66	300	6.11	0.00	0.00	6.11	6.96	30.2	30.726	1.8	0.002		
85876	2.22	841	60	0.123	0.66	300	5.94	0.00	0.00	5.94	7.26	10.6	10.481	-1.5	-0.001		
85878	2.55	834	60	0.11	0.66	300	6.17	0.00	0.00	6.17	6.96	11.7	11.802	0.7	0.000		
85884	4.28	805	60.08	0.025	0.66	300	10.10	0.00	0.00	10.10	6.05	17.1	19.037	10.2	0.007		
85890	3.8	807	65.88	0.018	0.70	300	10.37	0.00	0.00	10.37	6.05	16.0	17.698	9.7	0.006		
86214	207.48	6	1.96	0.1	0.31	N/A	0.00	0.00	0.00	5.00	7.26	469.6	299.418	-56.8	-1.987		
86220	0.9	42	0	0.044	0.30	300	15.22	0.00	0.00	15.00	5.19	1.4	1.171	-19.7	-0.003		
86224	4.03	24	0	0.086	0.30	300	12.17	0.00	0.63	12.81	5.67	6.9	13.197	48.1	0.033		
86224	2.65	28	0	0.167	0.30	300	9.76	0.00	0.00	9.76	6.26	5.0	8.241	39.6	0.018		
86226	8.71	23	0	0.058	0.30	300	13.88	0.00	0.40	14.28	5.34	14.0	13.801	-1.1	-0.002		
92020	38.65	73	26.5	0.049	0.46	300	11.77	0.00	0.00	11.77	5.86	104.0	91.153	-14.0	-0.092		
92021	1.11	209	18	0.041	0.41	300	13.48	0.00	0.00	13.48	5.5	2.5	2.725	8.6	0.002		
92025	4.5	180	18	0.109	0.41	300	9.73	0.00	0.00	9.73	6.26	11.5	15.626	26.4	0.020		
92035	3.78	232	18	0.096	0.41	270	9.63	0.00	0.00	9.63	6.26	9.7	15.714	38.6	0.025		
92048	30.59	179	18	0.054	0.41	300	12.30	0.75	0.00	13.05	5.5	68.6	62.361	-10.1	-0.052		
92061	36.71	277	17.01	0.06	0.40	300	11.97	0.00	0.00	11.97	5.86	86.5	91.223	5.2	0.032		
92079	3.15	376	17.81	0.182	0.41	300	8.22	0.00	0.00	8.22	6.48	8.3	11.723	29.2	0.015		
92080	16	356	18	0.08	0.41	300	17.12	1.77	0.00	16.77	5.05	33.0	37.115	11.2	0.030		
92112	10.06	419	18	0.048	0.61	300	10.79	0.00	0.00	10.79	6.05	24.8	29.355	15.4	0.026		
92135	28.02	398	51.37	0.054	0.66	300	9.09	2.28	0.00	11.37	5.86	99.9	106.062	5.8	0.028		
92136	51.14	371	30.23	0.026	0.48	300	7.78	0.00	0.00	7.78	6.71	103.6	98.022	-5.7	-0.022		
92152	1.78	512	59.97	0.071	0.66	300	14.03	4.96	0.00	18.99	4.8	118.2	122.286	3.4	0.029		
92152	3.15	515	60	0.034	0.66	300	9.12	0.00	0.00	9.12	6.48	7.6	8.948	14.9	0.004		
92152	2.41	517	62.82	0.01	0.68	300	13.19	0.00	0.00	13.19	6.26	13.0	14.749	11.8	0.006		
92156	13.88	509	18.04	0.049	0.41	300	12.70	0.00	0.00	12.70	5.67	32.1	37.646	14.7	0.034		
92169	12.46	531	18.1	0.057	0.41	300	12.07	0.00	0.00	12.07	5.67	28.9	36.18	20.2	0.042		
92173	11.08	557	60	0.037	0.66	300	8.87	0.00	0.00	8.87	6.48	47.4	43.596	-8.7	-0.016		
92178	29.18	599	49.53	0.067	0.60	300	8.32	0.00	0.00	8.32	6.48	112.9	114.327	1.2	0.006		

Drainage ID	Actes	Subcatch ID	Percent Impervious	Subcatch (Slope, ft/ft)	C	Flow Length		10-Year Future condition		SWM vs. Rational Method		Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Rational % Difference	Area Weighted Difference
						Overland (<300 ft)	Underland	Gutter	Pipe	Gutter	Pipe						
92189	2.84	589	18	0.04	0.41	300	300	0.00	0.00	13.59	5.5	6.4	10.077	36.8	0.18		
92190	29.94	600	29.17	0.098	0.48	300	840	0.00	0.00	9.11	5.86	83.3	107.283	22.3	0.113		
92198	6.2	673	18	0.073	0.41	300	300	0.00	0.00	11.12	5.67	14.3	21.111	32.1	0.033		
92219	17.93	702	18.59	0.108	0.41	300	300	0.00	0.00	9.71	6.05	44.6	60.719	26.5	0.080		
92248	26.47	828	60.72	0.11	0.66	300	300	0.00	0.00	6.11	6.96	122.4	114.762	-6.6	-0.030		
92250	29.94	809	61.06	0.078	0.67	300	300	0.00	0.00	6.82	6.96	138.9	122.519	-13.3	-0.067		
92253	2.18	832	82.24	0.088	0.79	300	300	0.00	0.00	4.63	7.26	12.6	11.187	-12.3	-0.005		
92259	6.8	844	68.33	0.064	0.71	300	300	0.00	0.00	6.55	6.96	33.6	33.32	-0.8	-0.001		
92260	3.37	858	59.96	0.09	0.66	300	300	0.00	0.00	6.60	6.96	15.5	15.48	0.0	0.000		
92264	3.64	868	60	0.125	0.66	300	300	0.00	0.00	5.91	7.26	17.4	17.56	0.7	0.000		
92265	2.04	873	60.44	0.044	0.66	300	300	0.00	0.00	8.32	6.48	8.8	9.059	3.3	0.001		
92267	7.5	869	55.75	0.093	0.63	300	300	0.00	0.00	6.90	6.96	33.1	35.949	7.9	0.010		
92269	3.69	870	60	0.117	0.66	300	300	0.00	0.00	6.04	6.96	17.0	17.835	5.0	0.003		
92269	39.72	836	85	0.053	0.81	300	300	0.00	0.00	5.19	7.26	233.6	198.869	-17.5	-0.117		
92278	32.31	889	56.34	0.038	0.64	300	210	0.00	0.00	9.23	6.05	12.7	122.707	-1.6	-0.009		
92281	1.5	891	85	0.095	0.81	300	300	0.00	0.00	4.27	7.26	8.8	7.665	-15.1	-0.004		
92288	7.66	637	22.11	0.062	0.43	300	300	0.00	0.00	11.33	5.86	19.4	28.379	31.6	0.041		
92289	21.49	633	18	0.056	0.41	300	600	0.00	0.00	12.15	5.34	46.8	67.885	31.0	0.112		
92289	3.5	688	18	0.04	0.41	300	450	0.00	0.00	13.59	5.19	7.4	10.588	30.0	0.018		
92289	4.88	697	18	0.045	0.41	300	300	0.00	0.00	13.07	5.5	11.0	15.126	27.6	0.023		
92293	25.59	780	63.42	0.04	0.68	300	300	0.00	0.00	8.24	6.48	112.8	116.804	3.4	0.015		
92317	4.14	850	13.23	0.117	0.38	300	300	0.00	0.00	9.90	6.26	9.8	12.582	21.9	0.015		
92318	50.3	803	42.15	0.048	0.55	300	300	0.00	0.00	10.11	6.05	168.3	165.598	-1.6	-0.014		
92320	20.29	840	58.94	0.068	0.65	300	300	0.00	0.00	7.35	6.71	89.0	94.02	5.3	0.018		
92322	8.13	843	52.56	0.08	0.62	300	300	0.00	0.00	7.55	6.71	33.6	34.483	2.6	0.004		
92323	32.67	732	54.15	0.044	0.62	300	540	0.00	0.00	9.04	5.86	119.6	125.044	4.3	0.024		
92324	17.52	731	60	0.064	0.66	300	300	0.00	0.00	7.39	6.71	77.6	77.558	0.0	-0.000		
92326	3.44	727	62.45	0.088	0.67	300	600	0.00	0.00	6.42	6.96	16.2	16.733	3.5	0.002		
92329	8.64	662	13.43	0.072	0.38	300	600	0.00	0.00	13.48	5.5	18.1	32.823	44.9	0.065		
92332	12.93	643	59.85	0.034	0.66	300	1110	0.00	0.00	9.14	5.34	45.5	55.054	17.3	0.038		
92334	8.12	551	18	0.033	0.41	300	300	0.00	0.00	14.49	5.34	17.7	21.718	18.5	0.025		
92334	2.47	565	18	0.067	0.41	300	300	0.00	0.00	11.44	5.86	5.9	10.437	43.4	0.018		
92334	5.24	576	18	0.068	0.41	300	300	0.00	0.00	11.39	5.86	12.5	16.974	26.2	0.023		
92338	6.31	596	49.13	0.073	0.59	300	300	0.00	0.00	8.12	6.48	24.3	26.836	9.4	0.010		
92339	10.79	615	25.02	0.087	0.45	300	300	0.00	0.00	9.85	6.26	30.4	44.656	31.9	0.058		
92340	6.68	545	63.75	0.044	0.68	300	300	0.00	0.00	7.94	6.71	30.6	29.846	-2.5	-0.003		
92344	3.36	449	66.26	0.056	0.70	300	300	0.00	0.00	7.07	6.71	15.7	16.787	6.3	0.004		
92347	10.42	361	47.56	0.136	0.59	300	300	0.00	0.00	6.72	6.96	42.5	38.129	-11.3	-0.020		
92347	15.81	363	56.36	0.138	0.64	300	300	0.00	0.00	6.00	6.96	70.2	64.737	-8.5	-0.023		
92349	3.26	297	18	0.044	0.41	300	270	0.00	0.00	13.17	5.5	7.3	10.484	30.2	0.017		
92350	6.51	302	17.07	0.198	0.40	300	300	0.00	0.00	8.04	6.48	17.0	21.459	20.9	0.023		
92351	3.81	269	18	0.06	0.41	300	300	0.00	0.00	11.87	5.86	9.1	13.109	30.5	0.020		
92351	21.83	270	18	0.161	0.41	300	300	0.00	0.00	8.54	6.48	57.7	66.374	13.0	0.048		
92352	6.35	298	15.65	0.191	0.39	300	60	0.00	0.00	8.24	6.48	16.2	22.059	26.5	0.028		
92353	4.68	229	18	0.056	0.41	300	300	0.00	0.00	12.15	5.5	10.5	18.527	43.3	0.034		
92357	6.62	237	18	0.04	0.41	285	300	0.00	0.00	13.25	5.5	5.2	8.229	36.7	0.014		
92358	3.91	205	18	0.125	0.41	300	210	0.00	0.00	9.30	6.26	16.9	25.698	34.2	0.038		
92361	12.51	158	18	0.064	0.41	300	480	0.00	0.00	11.62	5.86	9.3	9.869	5.3	0.003		
92371	1.31	102	18	0.2	0.41	240	300	0.00	0.00	10.66	6.71	28.9	37.953	23.7	0.050		
92373	10.88	64	18	0.135	0.41	300	300	0.00	0.00	7.11	6.71	3.6	6.35	43.5	0.010		
92374	4.06	78	18	0.178	0.41	300	300	0.00	0.00	9.06	6.26	27.8	34.112	18.5	0.034		
92375	0.51	105	18	0.286	0.41	60	300	0.00	0.00	8.26	6.48	10.7	15.098	28.9	0.020		
92376	3.78	90	18	0.227	0.41	300	300	0.00	0.00	3.15	7.26	1.5	2.486	39.2	0.003		
92377	0.42	117	18	0.2	0.41	60	300	0.00	0.00	7.62	6.71	10.3	15.189	31.9	0.020		
92378	2.01	104	18	0.2	0.41	300	300	0.00	0.00	3.55	7.26	1.2	2.047	39.2	0.003		
92379	0.32	129	18	0.171	0.41	135	300	0.00	0.00	7.95	6.71	5.5	7.828	29.7	0.010		
92380	1.77	106	18	0.2	0.41	300	300	0.00	0.00	5.62	7.26	0.9	1.554	39.0	0.002		
92382	2.13	114	18	0.093	0.41	300	150	0.00	0.00	7.95	6.71	4.8	6.51	25.6	0.008		
92384	2.08	130	18	0.064	0.41	300	300	0.00	0.00	10.26	6.05	5.3	7.706	31.8	0.011		
92384	2.08	130	18	0.064	0.41	300	300	0.00	0.00	11.62	5.86	5.0	6.652	25.2	0.009		

Drainage ID	Inches	Subcatch ID	Percent Impervious	Subcatch Slope, ft/ft	C	10-Year Future condition		3-SWMM vs. Rational Method				Tc, min	Intensity, in/hr	Rational Q, cfs	XPSWMM Q, cfs	XPSWMM - Rational % Difference	Area Weighted Difference
						Flow Length	Overland (<300 ft)	Gutter	Pipe	Flow Length	Overland (<300 ft)						
92385	0.65	131	18	0.057	0.41	300		12.08	0.00	0.00	12.08	5.67	1.5	2,496	39.8	0.004	
92388	6.69	107	18	0.143	0.41	300		8.89	0.00	0.00	8.89	6.48	17.7	19,404	8.8	0.010	
92389	2.86	121	18	0.034	0.41	300		14.35	0.00	0.00	14.35	5.34	6.2	9,298	33.0	0.016	
92389	0.94	144	18	0.016	0.41	270		17.50	0.00	0.00	15.00	5.19	2.0	3,009	33.8	0.005	
92391	0.94	152	18	0.047	0.41	300		12.88	0.00	0.00	12.88	5.67	2.2	3,431	36.6	0.006	
92401	0.86	87	18	0.19	0.41	300		8.09	0.00	0.00	8.09	6.48	2.3	4.01	43.3	0.006	
92402	2.28	58	18	0.025	0.41	300		15.90	0.00	0.00	15.00	5.19	4.8	6.712	28.1	0.011	
92402	2.74	59	18	0.03	0.41	300		14.96	0.00	0.00	14.96	5.34	6.0	7.04	15.2	0.007	
92402	0.6	84	18	0.333	0.41	75		3.35	0.00	0.00	5.00	7.26	1.8	2,952	39.8	0.004	
92405	2.63	65	18	0.036	0.41	300		14.08	0.00	0.00	14.08	5.34	5.7	7,612	24.7	0.011	
92406	2.01	61	18	0.036	0.41	300		14.08	0.00	0.00	14.08	5.34	4.4	6,088	28.1	0.010	
92408	1.56	57	18	0.03	0.41	300		14.96	0.00	0.00	14.96	5.34	3.4	4,774	28.8	0.008	
92416	51.02	8	3.01	0.156	0.32	300	750	9.76	1.58	0.00	11.34	5.86	95.1	92,859	-2.4	-0.021	
92424	28.66	13	10.33	0.214	0.36	300	1050	8.29	1.89	0.00	10.18	6.05	62.8	79,176	20.7	0.100	
92425	1.81	886	74.63	0.065	0.75	300		5.88	0.00	0.00	5.88	7.26	9.8	8,719	-12.7	-0.004	
92426	4.98	887	85	0.104	0.81	300		4.14	0.00	0.00	4.14	7.26	29.3	25,483	-14.9	-0.013	
92427	1.84	890	85	0.097	0.81	300		4.24	0.00	0.00	5.00	7.26	10.8	9,391	-15.2	-0.005	
92428	1007.43	1	19.07	0.09	0.41	N/A		0.00	0.00	0.00	5.00	7.26	3031.0	1943.087	-56.0	-9.506	
92429	22.68	81	18	0.133	0.41	300	720	9.11	1.65	0.00	10.75	6.05	56.0	77,825	28.1	0.107	
92430	59.84	19	18	0.118	0.41	300	390	9.48	0.95	0.00	10.42	6.05	147.7	122,585	-20.5	-0.207	
92432	108.46	9	19.58	0.063	0.42	300	900	11.52	2.99	0.00	14.51	5.34	241.8	164,224	-47.2	-0.863	
92434	4.97	146	35.84	0.048	0.52	300		10.81	0.00	0.00	10.81	6.05	15.5	18,606	16.8	0.014	
92435	10.9	120	18	0.165	0.41	300	600	8.47	1.23	0.00	9.71	6.26	27.8	40,75	31.7	0.058	
92436	2.98	145	18	0.03	0.41	300		14.96	0.00	0.00	14.96	5.34	6.5	8,957	27.5	0.014	
92438	5.71	135	18	0.04	0.41	300		13.59	0.00	0.00	13.59	5.5	12.8	15,923	19.5	0.019	
92441	10.34	125	18	0.062	0.41	300		11.74	0.00	0.52	12.26	5.67	23.9	34,255	30.2	0.053	
92443	4.67	128	18	0.058	0.41	300		12.01	0.00	0.00	12.01	5.67	10.8	11,378	5.1	0.004	
92445	3.86	189	85	0.027	0.81	300		6.49	0.00	0.00	6.49	6.96	21.8	19,681	-10.6	-0.007	
92446	8.31	169	26.07	0.19	0.46	300		7.52	0.00	0.00	7.52	6.71	25.5	35,618	28.5	0.040	
92446	1.73	204	85	0.01	0.81	225	210	7.83	1.75	0.00	9.58	6.26	8.8	8,887	1.3	0.000	
92447	10.31	206	34.79	0.195	0.51	300	180	6.85	0.34	0.00	7.19	6.71	35.2	46,383	24.1	0.042	
92449	12.21	230	19.4	0.17	0.42	300	450	8.29	0.91	0.00	9.20	6.26	31.8	45,881	30.6	0.063	
92455	0.53	276	18	0.13	0.41	180	60	7.11	0.14	0.00	7.25	6.71	1.5	2,394	39.4	0.004	
92456	13.9	238	18	0.098	0.41	300	600	10.08	1.60	0.00	11.68	5.86	33.2	43,618	23.8	0.056	
92456	6.83	307	18	0.08	0.41	300		10.79	0.00	0.00	10.79	6.05	16.9	20,241	16.7	0.019	
92458	1.71	266	18	0.133	0.41	300		9.11	0.00	0.00	9.11	6.26	4.4	7.2	39.3	0.011	
92459	18.15	280	18	0.073	0.41	300	300	11.12	0.93	0.00	12.05	5.67	42.0	47,732	12.0	0.037	
92459	4.14	311	18	0.044	0.41	300	60	13.17	0.24	0.00	13.40	5.5	9.3	9,045	-2.7	-0.002	
92459	1.4	336	18	0.025	0.41	300	660	15.90	3.55	0.00	15.00	5.19	3.0	4,413	32.8	0.008	
92459	0.98	340	18	0.024	0.41	300		16.11	0.00	0.00	15.00	4.8	1.9	3,888	43.4	0.007	
92459	1.87	342	18	0.032	0.41	300		14.64	0.00	0.00	14.64	5.34	4.1	6,802	40.1	0.013	
92463	0.91	217	18	0.024	0.41	300		12.48	0.00	0.00	12.48	5.67	2.1	3,563	40.9	0.006	
92465	1.5	173	18	0.056	0.41	300		12.15	0.00	0.00	12.15	5.67	3.5	5,149	32.6	0.007	
92465	1.15	186	18	0.107	0.41	225		8.48	0.00	0.00	8.48	6.48	2.4	4,492	45.9	0.008	
92465	1.05	196	18	0.056	0.41	300		12.15	0.00	0.00	12.15	5.67	2.4	4,492	45.9	0.008	
92467	4.18	168	18	0.131	0.41	300		9.15	0.00	0.00	9.15	6.26	10.7	16,937	37.0	0.026	
92469	25.73	165	18	0.058	0.41	300		12.01	0.00	0.00	12.01	5.67	59.5	75,405	21.1	0.091	
92470	13.07	136	18	0.078	0.41	300		10.88	0.00	0.00	10.88	6.05	32.3	44,831	28.0	0.062	
92471	1.62	166	18	0.131	0.41	300		9.15	0.00	0.00	9.15	6.26	4.1	6.56	36.9	0.010	
92472	1.47	184	18	0.027	0.41	300		15.49	0.00	0.00	15.00	5.19	3.1	3,895	20.1	0.005	
92472	1.51	187	18	0.063	0.41	300		11.68	0.00	0.00	11.68	5.86	3.6	5,491	34.3	0.009	
92474	25.07	118	19.09	0.078	0.41	N/A		0.00	0.00	0.00	5.00	7.26	75.4	87,005	13.3	0.056	
92475	1.91	399	18	0.082	0.41	300		10.70	0.00	0.00	10.70	6.05	4.7	6,995	32.6	0.010	
92477	6.96	347	18	0.036	0.41	300		14.08	0.00	0.00	14.08	5.34	15.2	18,985	20.1	0.024	
92479	31.53	394	22.58	0.059	0.44	300	900	11.47	3.09	0.00	14.55	5.34	73.3	90,172	18.7	0.099	
92479	1.73	459	18	0.088	0.41	N/A	540	6.74	1.52	0.00	6.52	6.96	4.5	5,825	37.4	0.011	
92480	1.18	492	40.62	0.1	0.54	210		9.75	0.00	0.00	9.75	5.5	153.8	202,128	23.3	0.005	
92486	69.12	268	17.42	0.11	0.40	300	1500	7.85	3.77	0.00	13.52	6.26	67.3	69,704	3.5	0.010	
92487	16.85	415	56.27	0.062	0.64	300	570	10.33	1.91	0.00	10.33	6.05	14.3	16,508	13.6	0.013	
92490	5.74	396	18.47	0.09	0.41	300											

